



A project report on

**Schema Formations With Assentation Tools**

Submitted in partial fulfilment of the requirement  
For the award of the degree

**MASTER OF COMPUTER APPLICATIONS**  
Of



Visvesvaraya Technological University  
Belgaum, Karnataka

By

**AKSHAY A**  
**1CY18MCA50**



**CMR INSTITUTE OF TECHNOLOGY**  
**132, IT Park Road, Kundalahalli, Bangalore-560037**  
**2019-2020**

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Under the guidance of

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Bangalore.



**CMR INSTITUTE OF TECHNOLOGY**

**132, IT Park Road, Kundalahalli, Bangalore-560037**

**2019-2020**

**CMR INSTITUTE OF TECHNOLOGY**  
**Department of Master of Computer Applications**  
**Bangalore - 560037**



***CERTIFICATE***

*This is to certify that the project work entitled*

**Schema Formations With Assentation Tools**

*Submitted in partial fulfilment of the requirement  
for the award of the degree of  
Master of Computer Applications of the  
Visvesvaraya Technological University, Belgaum, Karnataka  
bonafide work carried out by*

**AKSHAY A**  
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*during the academic year 2019-2020.*

\_\_\_\_\_  
**Signature of the Guide**  
**Ms. Moumita Roy**  
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HOD, MCA

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External Viva

Name of the Examiners

- 1.
- 2.

Signature with date

## DECLARATION

I, **AKSHAY A**, student of 6<sup>th</sup> Sem MCA, **CMR Institution of Technology**, bearing the USN **1CY18MCA50**, hereby declare that the project entitled “**Schema Formations With Assentation Tools**” has been carried out by me under the supervision of External Guide **Mr.Uttkersh, Team Lead**, and Internal Guide **Ms. Moumita Roy, Assistant Professor, Dept. of Master of Computer Applications** and submitted in the partial fulfillment of the requirements for the award of the Degree of Master of Computer Applications by the **Visvesvaraya Technological University** during the academic year 2019-2020. The reports has not been submitted to any other University or Institute for the award of any degree or certificate.

Place: Bangalore

AKSHAY A

Date:

(1CY18MCA50)

## **ACKNOWLEDGEMENT**

I would like to thank all those who are involved in this endeavour for their kind cooperation for its successful completion. At the outset, I wish to express my sincere gratitude to all those people who have helped me to complete this project in an efficient manner.

I offer my special thanks to my external project guide Mr. Uttkersh, Team Lead, Elixir Software's, Bangalore, and to my Internal Project guide Ms. Moumita Roy, Assistant Professor, Department of MCA, CMRIT, Bangalore without whose help and support throughout this project would not have been this success.

I am thankful to Dr. SANJAY JAIN, Principal, CMRIT, Bangalore for his kind support in all respect during my study. I would like to thank Mr. Uttkersh, Team Lead, Elixir Software's, Bangalore, who gave opportunity to do this project at an extreme organization Most of all and more than ever, I would like to thanks my family members for their warmness, support, encouragement, kindness and patience. I am really thankful to all my friends who always advised and motivated me throughout the course.

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### CERTIFICATE

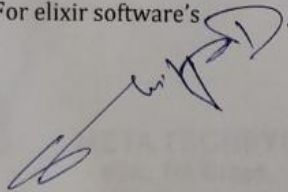
This is to certify that the project titled "Schema formations with assentation tools" is submitted to elixir software's in fulfillment of the requirement for the final semester degree of MCA from CMRIT, Bangalore.

The project is a bona fide record at work carried out by Mr. Akshay A (1CY18MCA50) under the supervision and guidance of Mr. Uttkersh (Team Lead) elixir software's, Bangalore between the periods from 23-12-2019 to 29-5-2020.

The source code of the Project is not issued to the trainee as per the policy of the company. Screen print for the application is provided in limited no's.

Thanking You,

For elixir software's



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Koramangala Extn., Madivala  
(HR Manager) Bangalore

| <b>S.NO.</b> | <b>Contents</b>                                | <b>Page No.</b> |
|--------------|--|-----------------|
| <b>1.</b>    | Introduction                                   |                 |
|              | <b>1.1</b> Project Description                 | 1               |
|              | <b>1.2</b> Company Profile                     | 3               |
| <b>2.</b>    | Literature Survey                              |                 |
|              | <b>2.1</b> Existing System and Proposed System | 5               |
|              | <b>2.2</b> Feasibility Study                   | 7               |
|              | <b>2.3</b> Tools and Technologies Used         | 9               |
|              | <b>2.4</b> Hardware and Software Requirements  | 13              |
| <b>3.</b>    | Software Requirement Specification             |                 |
|              | <b>3.1</b> Functional Requirements             | 15              |
|              | <b>3.2</b> Non- Functional Requirements        | 18              |
| <b>4.</b>    | System Design                                  |                 |
|              | <b>4.1</b> Context Diagram                     | 20              |
|              | <b>4.2</b> Architecture Diagram                | 24              |
| <b>5.</b>    | Detailed Design                                |                 |
|              | <b>5.1</b> Class Diagram                       | 25              |
|              | <b>5.2</b> Use Case Diagram                    | 27              |
|              | <b>5.3</b> Entity Relationship Diagram         | 29              |
|              | <b>5.4</b> Sequence Diagram                    | 31              |
|              | <b>5.4</b> Packaging Diagram                   | 34              |
| <b>6.</b>    | Implementation                                 |                 |
|              | <b>6.1</b> Screen Shots                        | 36              |
| <b>7.</b>    | Software Testing                               | 42              |



|            |                         |    |
|------------|-------------------------|----|
| <b>8.</b>  | Conclusion              | 46 |
| <b>9.</b>  | Future Enhancements     | 47 |
| <b>10.</b> | APPENDIX-A Bibliography | 48 |
| <b>11.</b> | APPENDIX-B User Manual  | 49 |



# **1. INTRODUCTION**

## **1.1 PROJECT DESCRIPTION:**

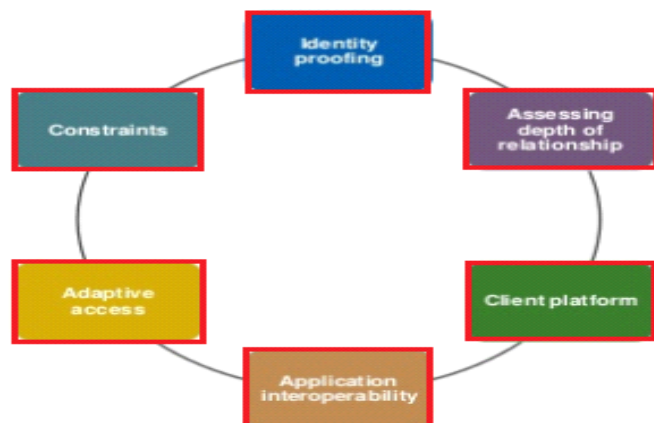
The system which is designed to acknowledge essential consolidation of different types of features that will provide the users with the required security locations, user associations for workability, information analysis, custom utilization of the incorporated channels etc. in a controlled way. The system provides a deep understanding for various types of task for which the organizations required work consolidation as multiple categories are provided which will be utilized for every reference needed from single control interface. Multiple types of factorial incorporation is provided within the system which will help the users to associate the type of security they need at a time in a custom format.

All types of factorial in corporation that is provided can we set up according to the requirements with each define inputs has to be provided by the user themselves, all the references that are added can established in such a way that even the users can understand that how the complex algorithm that are going to be incorporated works. The system also allocates the algorithms in such a way that different resources for the implement of the security means are not required and multiple types of algorithms from a single interface can be implied. The system also provides detailed regulation formations which is very much suitable to control the identities the way it is required or we can say that when multiple users are add it is required that multiple set of regulation should be applied for them so that secured workability can be achieved which includes various types of active directory and factor based options.

Each option that is provided within the system is included with a standard reference page so that settings can be done properly. The users can also be added in different sets of Hierarchy with many types of work allocation & security allocations by the administrator as a detailed reference of users can be acknowledged with the help of multiple defined options provided. Elaborate head who work understanding can be established where system provides all references of profile designing and other authenticated rights that have to be provided.. System will provide all types of resources which have to be acknowledged for the work ability this will enhance work consideration when various types of projects will be undertaken by the organization using it.

Any type of considerable task that has to be performed related to any department or related to any type of perception can be organized with the help of system as multiple types of categories are associated and multiple types of vendors are added to provide the substantial usable resource. The system is based on self-service so each consideration that is required to be added is required to keep properly set up by the authenticated user only as various types of security implementations and types of user rights are able to be defined.

The system is well elaborated with all types of features required for the consolidated working where each user will be having their concept of defining the security which makes it more optimal in terms of usage by the larger organization where different types of working task are required be established. Sustainment Of the information is also provided with the help of elaborated report system and each report is mentioned in such way that multiple types of considerable filters can be added for acknowledging the type of information needed. Multiple type of protocol based security system is also included so that different types of networks that will be added within the platform for the usage and for the sustainability of different types of activities can be performed.



**Figure-1: The above diagram shows that how the service platform provides considerations**

The system also provides the overall modification in change view which will be helpful to get the modifications based on the work frames that will be provided from the service provider. The communication that is needed directly for the vendor by support is also provided within the service this will help the companies to establish the type of workability is all they are looking for from a single system and which can even be incorporated and configured on the same platform for the usage. The system is well designed to provide multiple fractions and even elaborated dashboard is provided for various types of information tracking.

Multiple policies can be enabled whenever required by the indicated user for the working navigation and control is made easier within the system in any type of workability any time required can be organized in a flexible way. Establishing multiple references is also provided at the same time different types of security considerations implied on different types of project activities where multiple projects are undertaken will be managed making it great for the organizations having different types of clients and workability. The Identity Federation which is required to be established will be in regards of detailed applicability timeframes also this will help to maintain proper security.

## 1.2 COMPANY PROFILE

### ELIXIR SOFTWARE'S



Elixir is Technology driven association where all the most recent developing Technologies is considered for different customization support however observation utilities for the association unconcerned forthcoming. Different skill group and experts will be associated with in house plan of IT arrangements that are required for different contemplations of examination and activities. The organization works in different kinds of area and Designs away at circumstances in a configuration that it ought to be fast and moderate with the whole related goal incorporated for the achievement of the customer thought.

We outfit the point of convergence of Excellence with all the inclination data and game plans with association with various Optimization consultant courses of action required for completing difficulties uninterested perspective on working. Numerous hierarchical comprehensions on a worldwide scale have been accomplished; the association is likewise related with conference so different figuring difficulties can be connected with the customer's recognition to give ideal development and comprehension.



Some of the services provided by the application are-

Software Development

› Customize Software Development

› Product Development

- › Web Application Development

- › Sales Support Application

IT Services

- › Internet Marketing

- › E-mail Marketing

- › SMS Marketing

- › Server Hosting

Web Designing & Development

- › Web 2.0 Design & SEO

- › Multimedia Solution

- › Customized Shopping Cart Development

- › E-Commerce Website Design

## **2. LITERATURE SURVEY**

### **2.1 EXISTING AND PROPOSED SYSTEM**

#### **2.1.1 EXISTING SYSTEM**

The existing system working scenarios are difficult in terms of architecture management of different types of workability requirements needed by the organizations for example the security, the implication of authenticated usage policy, references usage of different types of resources and other problems in terms of the associations. All the related word considerations in the existing system is being done by individual identity making it more elaborate and the organizations require more funding to substitute the work.

Some important problems that are being acknowledged in the existing system is listed as follow-

- References of security methodologies needed to be implied for different types of work is not centralized and requires different formations of configurations and different formations of tools to acknowledge the security needs which makes it more prone to the errors and eventually the security is not up to the mark
- The working environment based tools which are needed are eventually associated by different types of vendors so individually every tool has to be selected and required configuration has to be undertaken for the usage so at the end multiple working configurations and resources are needed to be acknowledged
- All types of requirements for The Identity based policies are not supported in a existing system so if any type of policy is required to be established it requires lots of effort and settings
- When different types of security of sections are taken to be at knowledge in the existing system even we don't have a detail reporting option show the control in terms of policy implementation and security breach is not up to date
- In the existing system even the type of workability we require in different variations on a particular project is not supported to be maintained from a single reference system and multiple types of environment required to be created with different working identities making it complex
- Intentional selection of the security algorithms with multiple considerations for different activities is not supported so for each security algorithm implementation referential tools are utilized

- Time foundation based security relations with automated notifications are also not supported in the existing system so for each security review different types of manual references are required to be acknowledged
- The data variations and workability on a central control is also not provided in a existing system and requires more elaborated setup options to be established

### **2.1.2 PROPOSED SYSTEM**

The propose system is provided to behave with criteria which is included by the users as they want or we can say that proposed system is design in such way that the lot of types of techniques can be implemented whenever required for as it is needed by the organization in terms of complex security perceptions, policy perceptions and other variations of different types of business task activity. The proposed system is defined while keeping the entire above problem in mind so that references can be generated properly.

Some of the important provisions of the proposed system are mentioned as following-

- All types of configuration that is needed in terms of security methodologies cannot be obtained from single system making it very much helpful as multiple security methods are included in a pre-incorporated fashion
- Multiple vendor criteria's are added so that users can collect their own vendors and the related tools dating for the activities and the process this will help to boost the economics as each reference can be used from one place
- The Identity based security policies can be implemented as different types of policy sections are provided with setting page in the proposed system which indeed will be helpful to implement different types of policies on different types of users
- System is also incorporated with the reports and these reports will be helpful to gain the insight about the workability in different formations of policy breach or other security concerns that have to be reviewed or regular basis
- Different types of workability and governance are not required to be set up as the system is centralized and each type of consideration is supported from a single space making it more coordinated, the reason why multiple projects can be associated at the same time related to different types of clients
- Multiple security algorithms can be implemented with detailed reference as the propose system provides integrated algorithm provisions this will help to add multiple Complex security persons at a time frame-based setups
- Time bound security with automatic notification systems is also associated in the proposed system this will help to review the policy definitions that are being implemented



- Data validation different types of data management options are also added so that the clients will be having detailed reference of data security acknowledgement based on cloud platforms that will be provided through the service provider

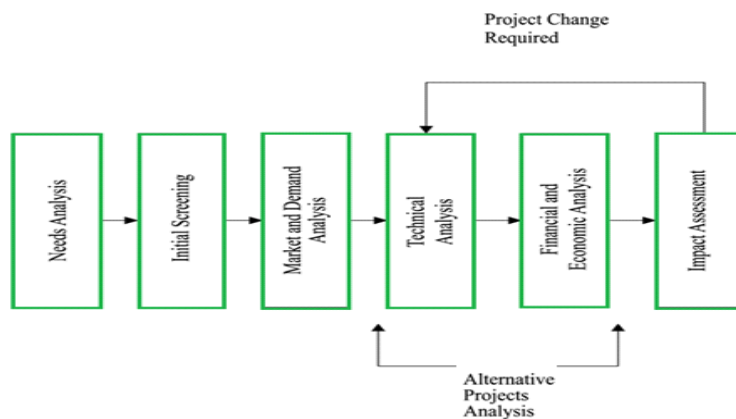
## **2.2 FEASIBILITY STUDY**

Feasibility study is associated with understanding the requirements which is needed to establish a proper methodological implementation service and that is intended to be provided and this will be done by understanding different fractions for example the technological requirements are required to be discussed in the same way the operational feasibility is required to be discussed where all types of Economics related to the product development is also required outlined

Technical feasibility

Operational feasibility

Economic feasibility



**Figure -2: The diagram shows feasibility association**

### **2.2.1 TECHNICAL FEASIBILITY**

The algorithms that are associated will be checked for compatibility according to the screen setups that are provided as the users are required to provide only the inputs in filter selection

All the types of policy implementation on the particular identities will be discussed as it is needed that it should be accurate and works according to the provisional setup made by the user

All the definitions of work and task regions will be done within the company premises and will be guided by the technological heads

The working guidelines and the procedure information processing will be performed so that each standards required can be followed

### **2.2.2 OPERATIONAL FEASIBILITY**

Operational feasibility is associated in terms of making the users understand that how the system can be utilized for the policy in security methodological implementations which indeed requires in house training so in-house training will be provided to the users

Detailed documentation to make it clear that how different categories of the resources, reports and other security provisions can be utilized as if multiple users will be not having that in sight of algorithms and policies that are included

Proper support is required provided to the users so they should not face any type of operational problems

Escalation based reviews will be also performed

### **2.2.3 ECONOMIC FEASIBILITY**

The return on investment calculations will be performed so that we can have clear understanding about the account feasibility

The ratios that are related with the detailed calculation of investment requirements for different types of development and implementation phase is will be also acknowledged this will be done by the requirement analysis by the financial department

The fund requirements should be properly associated as it is very much important for the proper development and implementation process to be considered.

## **2.3 TOOLS AND TECHNOLOGIES**



### **Java**

Java is a important programming language, introduced in 1995.

#### **It's used for:**

- Web applications
- Web server and application server
- Mobile applications
- Desktop applications
- Database connection
- Games

### **MySQL**

- MySQL is a database system which is used on the web
- MySQL also uses standard SQL
- MySQL is compiled on number of platforms
- MySQL is absolutely free to download and use
- MySQL is developed, distributed, and supported by Oracle Corporation
- MySQL is a database system which runs on a server
- MySQL is good for both small and large applications
- MySQL is very fast, reliable, and easy to use

### 2.3.1 INSTALL NET BEANS

Go to the link: <https://netbeans.apache.org/download/index.html>.

Just released!

## Apache NetBeans 11.1

[Find out more](#)

### Apache NetBeans Releases

Apache NetBeans is released four times a year. Our April release is a long-term support (LTS) release that benefits from our famous NetCAT community testing process, and will remain available and supported for a year. Our other quarterly releases provide early access to new features. See [full release schedule](#).

#### Apache NetBeans 11 feature update 1 (NB 11.1)

Latest version of the IDE, released on July 22, 2019.

[Features](#) [Download](#)

#### Apache NetBeans 11 LTS (NB 11.0)

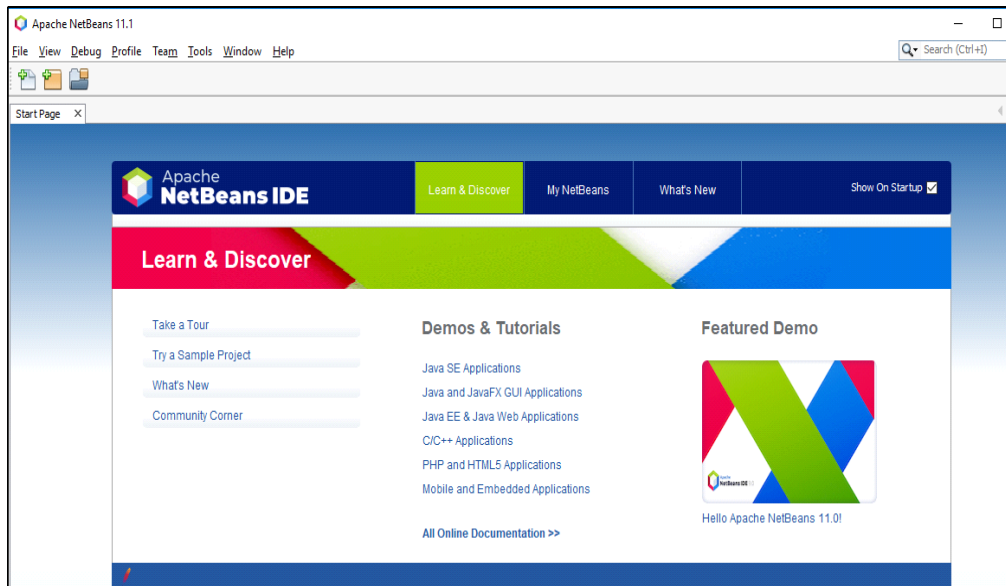
Latest LTS version of the IDE, released on April 4, 2019.

[Features](#) [Download](#)

[Older releases](#)

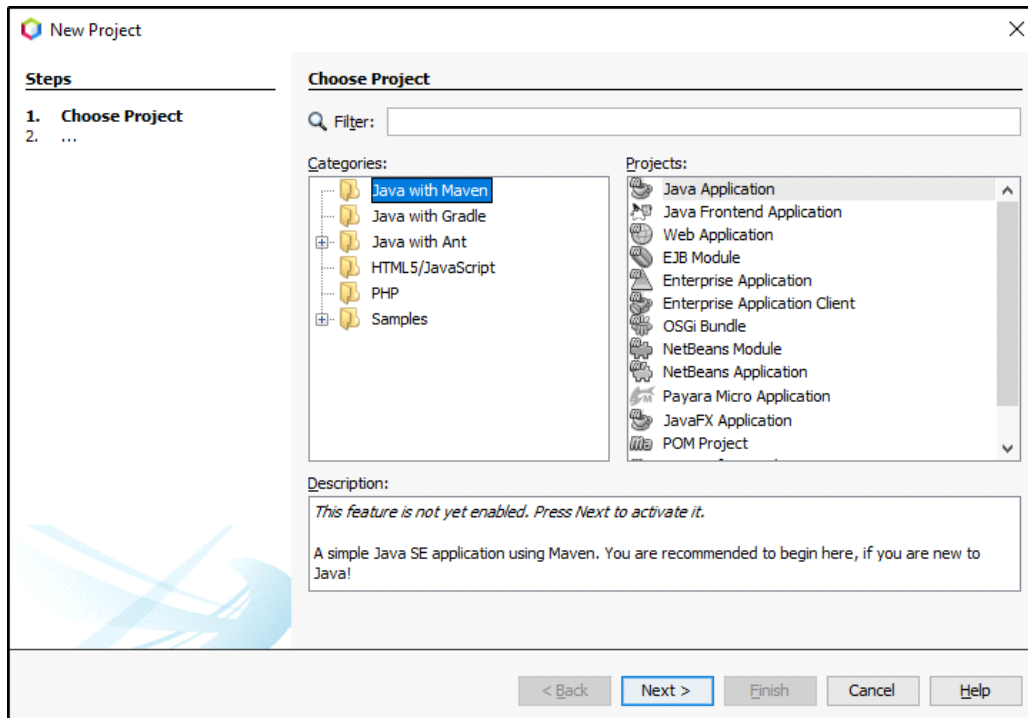
Net beans IDE has an easy layout structure with limited numbers of buttons.

Let's see how Net-Beans UI looks like:

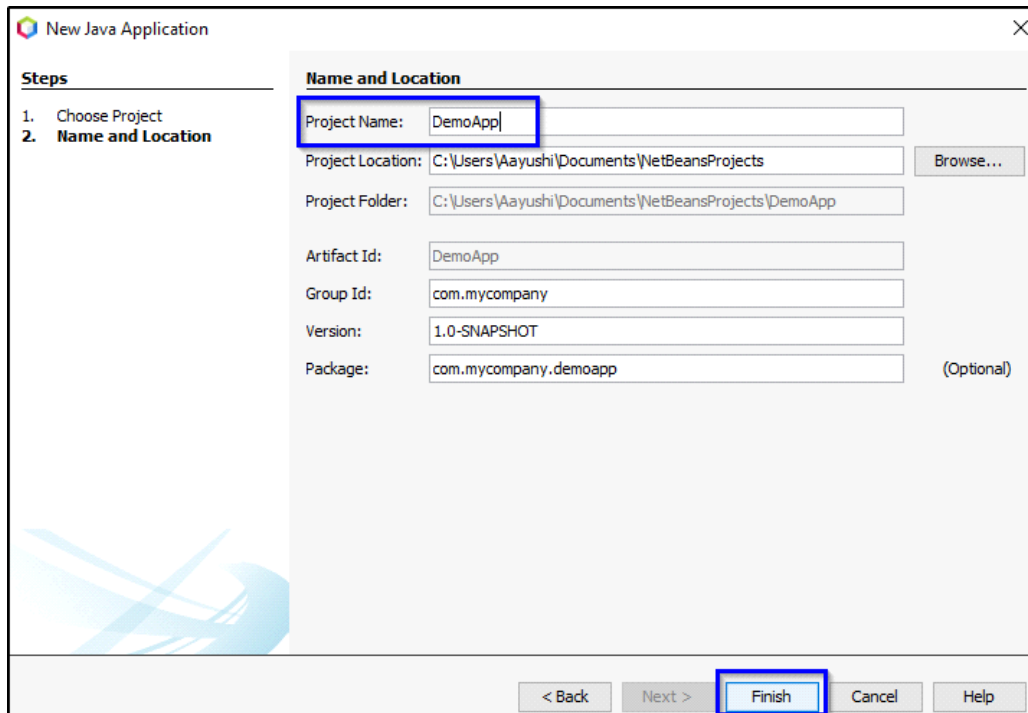


File -> New Project.

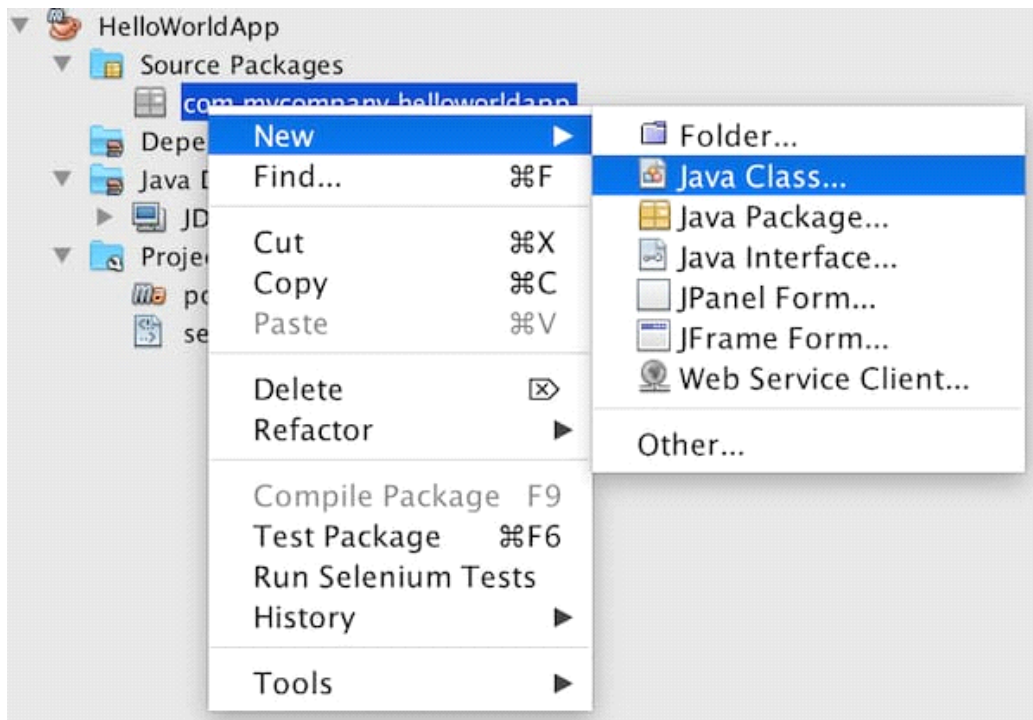
Select “Java” category and “Java Application” projects.



Select next button and Name our first project-



Click on "Finish" and you are set to go-



Our Java source file will be created and opened.

## **2.4 HARDWARE AND SOFTWARE REQUIREMENTS**

### **SOFTWARE –REQUIREMENTS:**

#### Databases

MySQL 8.0.13

#### Technology

Hybrid cloud (implementation)

#### Platform

Windows

#### Languages

JAVA (J2EE, JavaScript, JSP)

#### IDE

Net Beans / Eclipse

#### Supporting Server

Apache Tomcat 8, SSD cloud server, Amazon s3

### **HARDWARE –REQUIREMENTS:**

- Computer processor : intel core i3
- Clock speed : 1.7 GHz
- Hard Disk Space : 500 GB
- RAM : 4 GB

### **3. SOFTWARE REQUIREMENTS SPECIFICATION**

#### **USERS**

Administrator

The administrator of the system will add the associated users with the power of related security implementations and will also add the related resources that have to be used within the system or if needed that administrator itself will provide the services of the security implementation

Team

The team members are the provisional users those who will be added with the reference of workability and they will be performing different types of activities and are bounded by working policy

#### **DEPENDENCIES AND ASSUMPTIONS**

The users are required to have detail understanding about the security methods as multiple methods are included within the system and even they should be having proper rights implement security policy so it is assumed that administrative will add the authenticated users only with knowledge

The dependency of the system is that each variation of security implementation and policy implementation is provided on a single space which means that all types of working has to be done with the allocated account

#### **SCOPE AND ASSUMPTIONS**

The important of the system is that it can be utilized with workability reference as well as in terms of the security reference which makes it very much important for different types of organizations as it provides the synchronized working

The main objective of the system is to provide a cost effective which can help larger organizations to satisfy their working requirements and security requirements with synchronization and control



## **PROBLEM STATEMENT**

The problem statement in terms of different types of Schema formulation is required to be undertaken because we need to provide the use of the multiple schemas at the same place so as it is being collected the related configuration settings has to be obtained

Even the working of different types of resources that have provided is required to be checked according to the selective processing so that the rational reasoning that will be set up by the users in different accounts should full fill the working requirements

### **3.1 FUNCTIONAL REQUIREMENTS**

Functional requirements are performed to check the processing correctness and two outline that how the system will be utilized. Each function that is included within the system will be elaborated and each type of input and output constitutions will be also written

#### **Directories**

|                |   |
|----------------|---|
| Use Case Name  | Directories   |
| Trigger        | Selective   |
| Precondition   | Admin   |
| Process        | <p>Directories can be designed for different types of users where multiple types of working formation and hierarchies are provided by the system that can be located so when the system is being utilized it is needed that proper setup of the users has to the first acknowledged by the administrative so that different rights and different type of security needs can be implemented.</p> <p>Various users can be added which will be done with the help of a processing page that is provided by the system where the system ask for different types of inputs so that the considerable team users and the hierarchy can be defined.</p> |
| Post-condition | Different directories added   |

### Collaterals

|                |  |
|----------------|--|
| Use Case Name  | Collaterals  |
| Trigger        | Selection based  |
| Precondition   | Authentication   |
| Process        | <p>Setting of the collaterals are important and this will be done by the administrator when the users will be added even the system provides a mechanism where when a particular Collateral will be selected the system will ask allocated to the group of users in automatic format.</p> <p>Forgetting the detailed information about collateral it can be checked from the categories where related information will be provided</p> |
| Post-condition | Tools added  |

### Implementation of the methodologies

|                |   |
|----------------|---|
| Use Case Name  | Implementation of the methodologies   |
| Trigger        | Reference settings  |
| Precondition   | working authentication required   |
| Process        | <p>Implementation of the methodologies will be provided with self-acknowledgement or we can say that multiple options are provided which when selected will be provided with detailed setup frames and accordingly the references are required to be added.</p> <p>When the references are added, the system will save the workability provision and accordingly it will check and proceed in real time. Understanding knowledge is required when the methodologies are being collected as different types of algorithms will be associated</p> |
| Post-condition | Methods provided  |

## Acknowledge

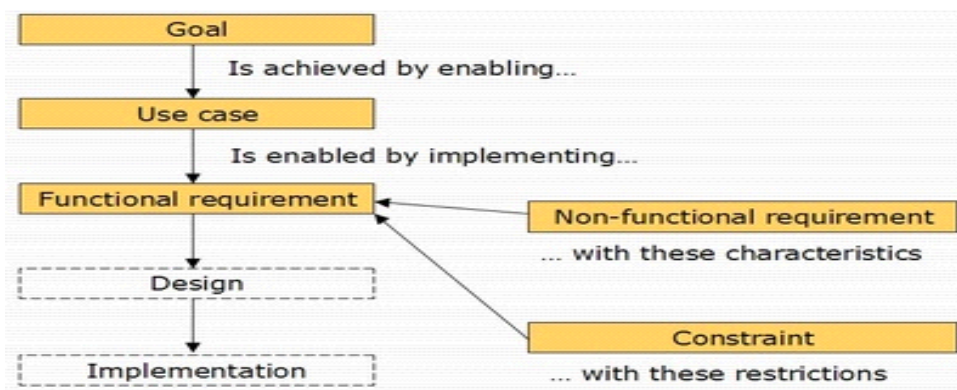
|                |   |
|----------------|---|
| Use Case Name  | acknowledge   |
| Trigger        | Settings  |
| Precondition   | Working performed   |
| Process        | To acknowledge the work system also provide the information reports which will be controlled by the administrator and even in report different types of categories are provided based on the user reports requirement for the related resource related information requirements of the related security based information requirements which has to be set up and acknowledged. |
| Post-condition | Reports generated   |

## Individual policies

|                |   |
|----------------|---|
| Use Case Name  | Individual policies   |
| Trigger        | Settings  |
| Precondition   | Authority required  |
| Process        | <p>Individual policies for the identities are also related with more security options to be included and this will be supported with the help of elaborated policy perception that is provided which again includes different types of categories and when related category will be selected the setup options are provided to the users so that they can proceed for the referential requirements.</p> <p>Various types off accessibility considerations are provided whereas collections will be made the system will provide different types of setups and accordingly the setup has to be utilized so that the related working setups can be done by the users as they require.</p> |
| Post-condition | Policies added  |

### **3.2 NON-FUNCTIONAL REQUIREMENTS**

This requirements will make us to increase the capacity and quality of the system so we have to check that user should be provided with an adaptable environment where all types of security requirements are and other perception of data information is also required to be provided



**Figure-3: The above figure shows that Functional and non Functional requirements direct impact**

#### **ADAPTABILITY**

This system is designed to provide the adaptability in such a way the various types of policies can be customized and can be utilized at the same time many types of resources can be selected and utilized in the same way lot of types of security methods can be utilized so the system will be adaptable in different variations of setups that have required by the users

#### **BACKUP**

When multiple type off task will be performed from the system it is required that system should provide the synchronized backup of all the related working in this will be established with the help of auto securitization option where each data will be saved or associated cloud platform

#### **RELIABILITY**

The system is reliable then only the users will be using it for different types of operational task so each and every provision that is provided will be checked for the accuracy and for the establishment of the working references that are selected by the users. The reliability of the implementation of different types of techniques if be considered so we have to do a proper check for the reference so that in the real time the user should not have any type of problem in implementing the type of schemes they require to formulate for security.

**DOCUMENTATION**

Integrated documentation system will be provided to the users as different types of complex algorithms are there and even different types of projections in terms of resources of providing so the user should be having a detailed information then only they can utilize the system which considerable documentation will be generated and will be provided as help

**ROBUSTNESS**

Robustness is very much important as the system has to maintain the workability in the real time as different types of users will be having variety types of consideration and they will be and in different types of regulations so when the regulations does not suit the related workability type and standard

## 4. SYSTEM DESIGN

### 4.1 CONTEXT DIAGRAM

Context diagram can help the stakeholders and analysts to understand the context of the system which is been designed without any technical knowledge

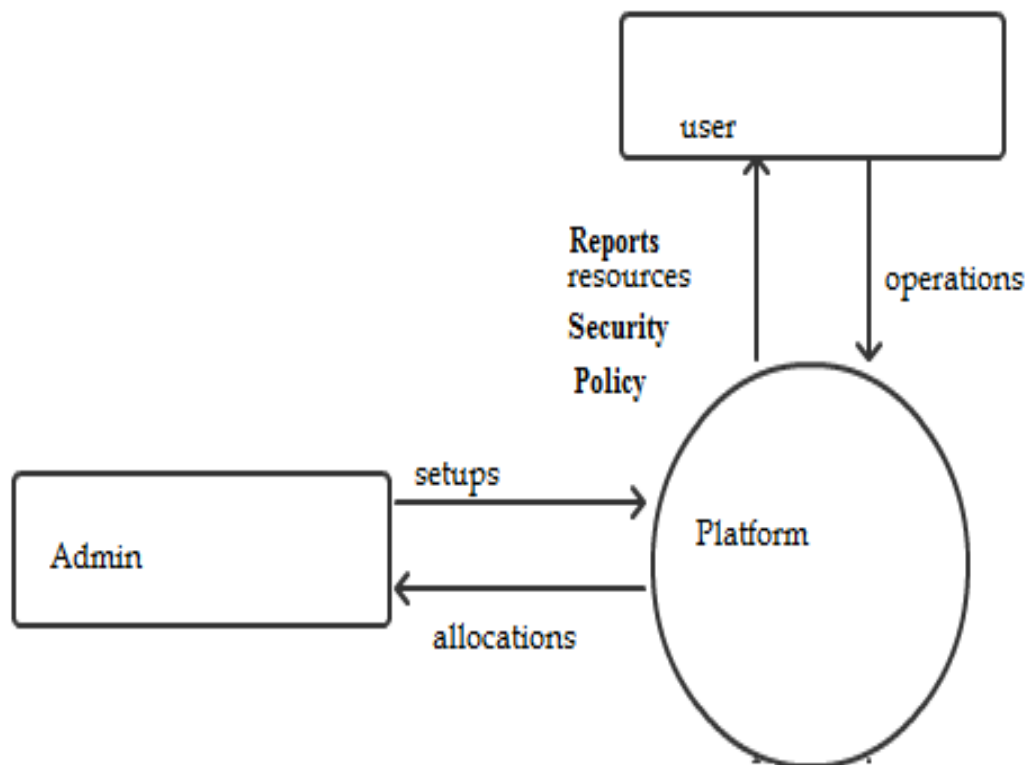
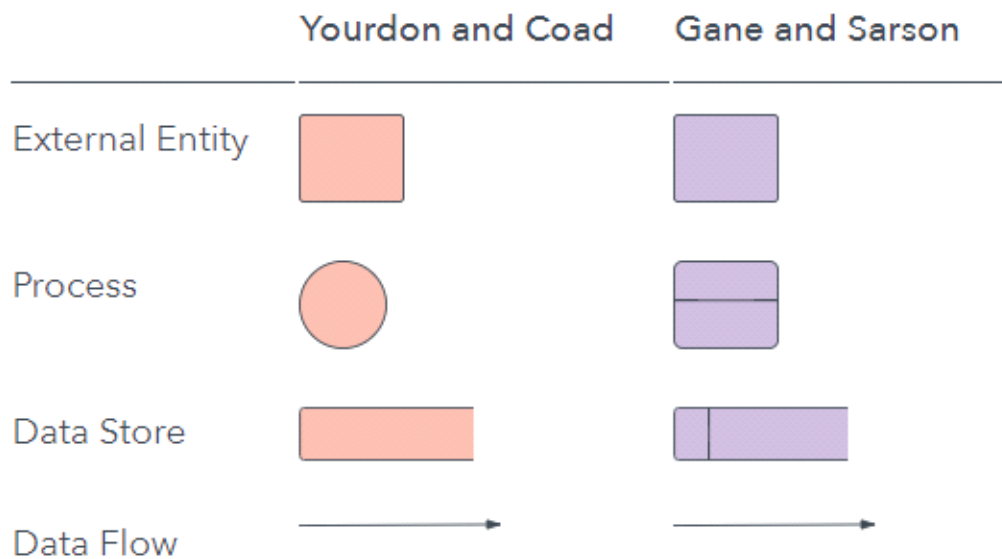


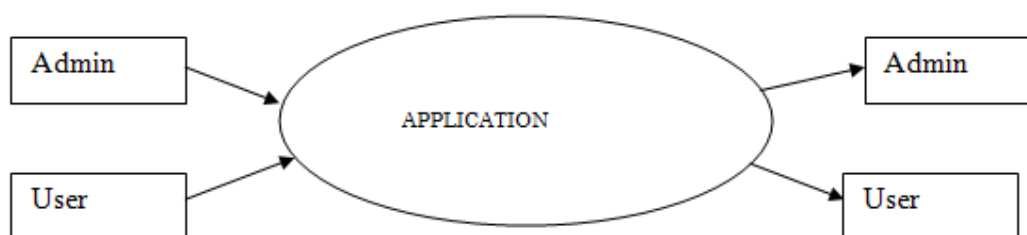
Figure-4: Context diagram

### 4.1.1 DATA- FLOW DIAGRAM

This diagram represents the flow of data of a process where the related information based on inputs and outputs of each entity will be represented



**Figure 5: Notations**



**Figure 10: Level-0 DFD diagram**

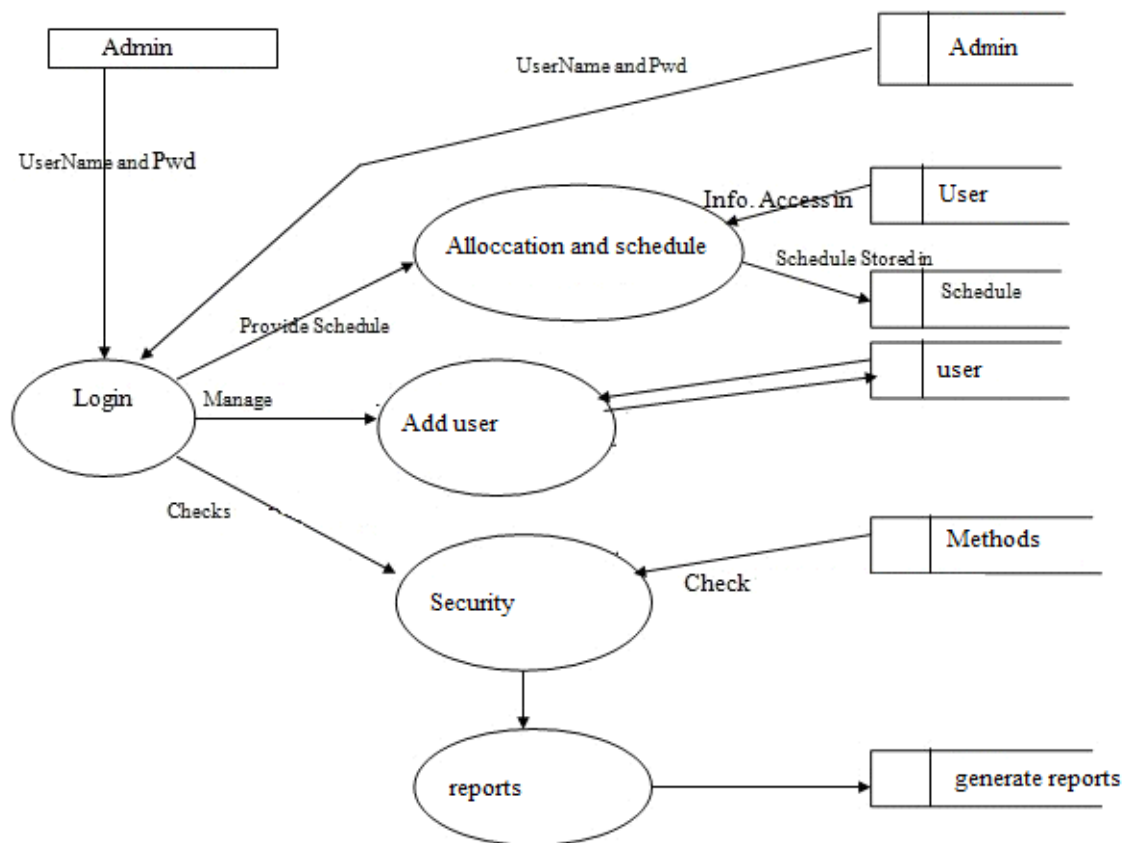


Figure 11: Level-1 DFD diagram



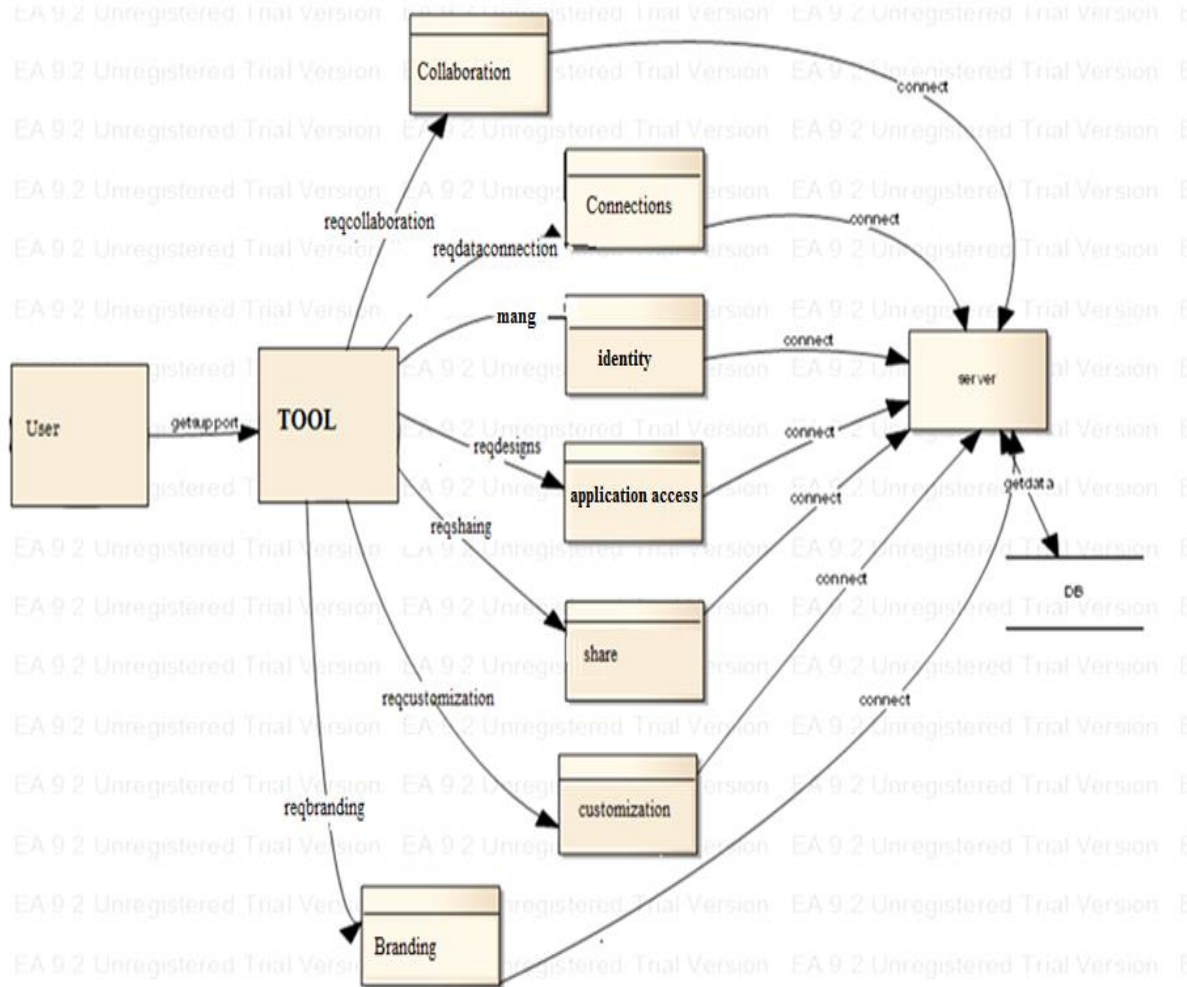
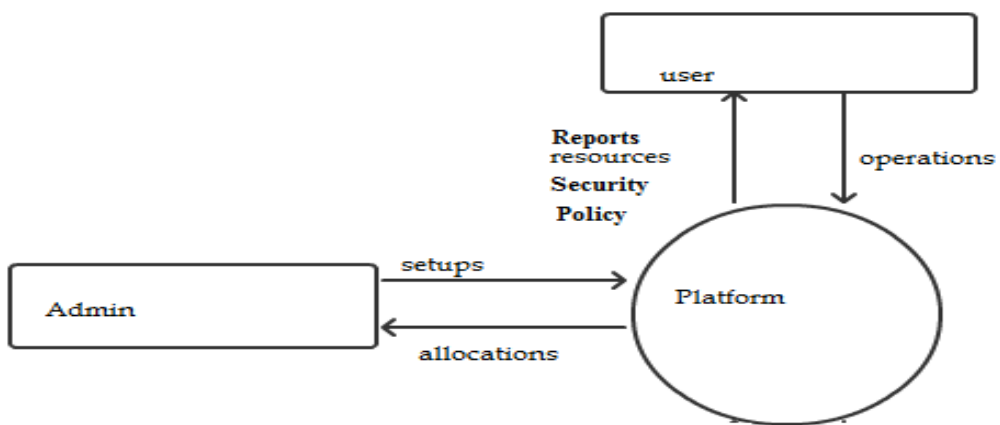
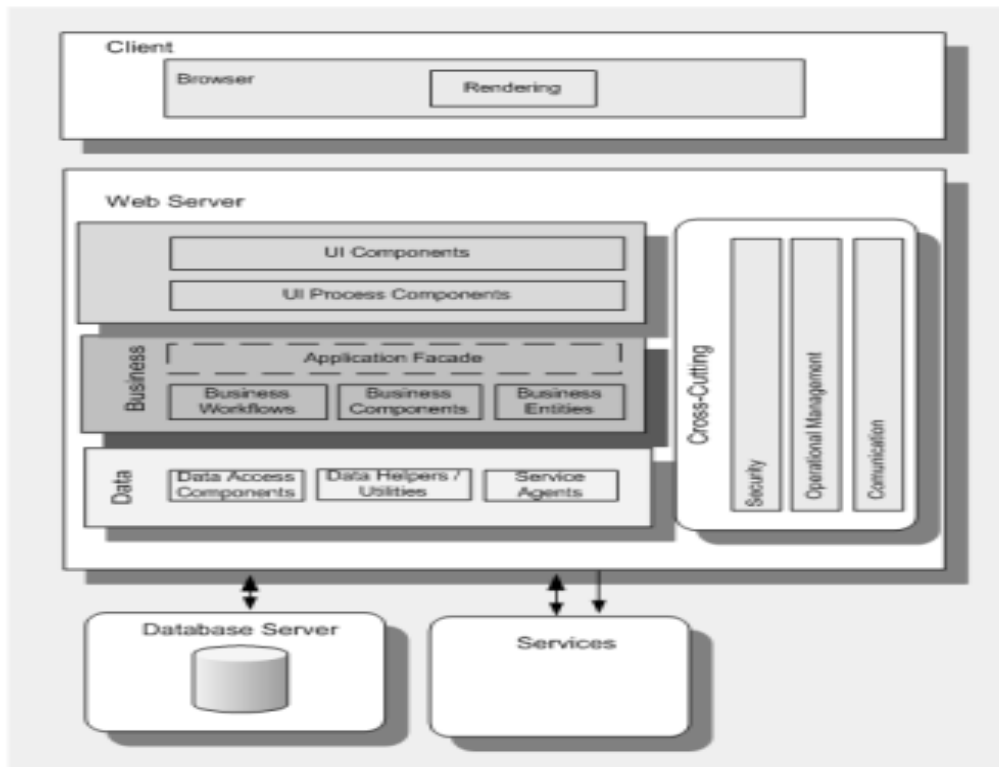


Figure 6: DFD level 2 diagram



## 4.2 ARCHITECTURE DIAGRAM

A conceptual model is been designed so that the structure behaviour and view of the system can be properly recognized this is what we call the architecture diagram

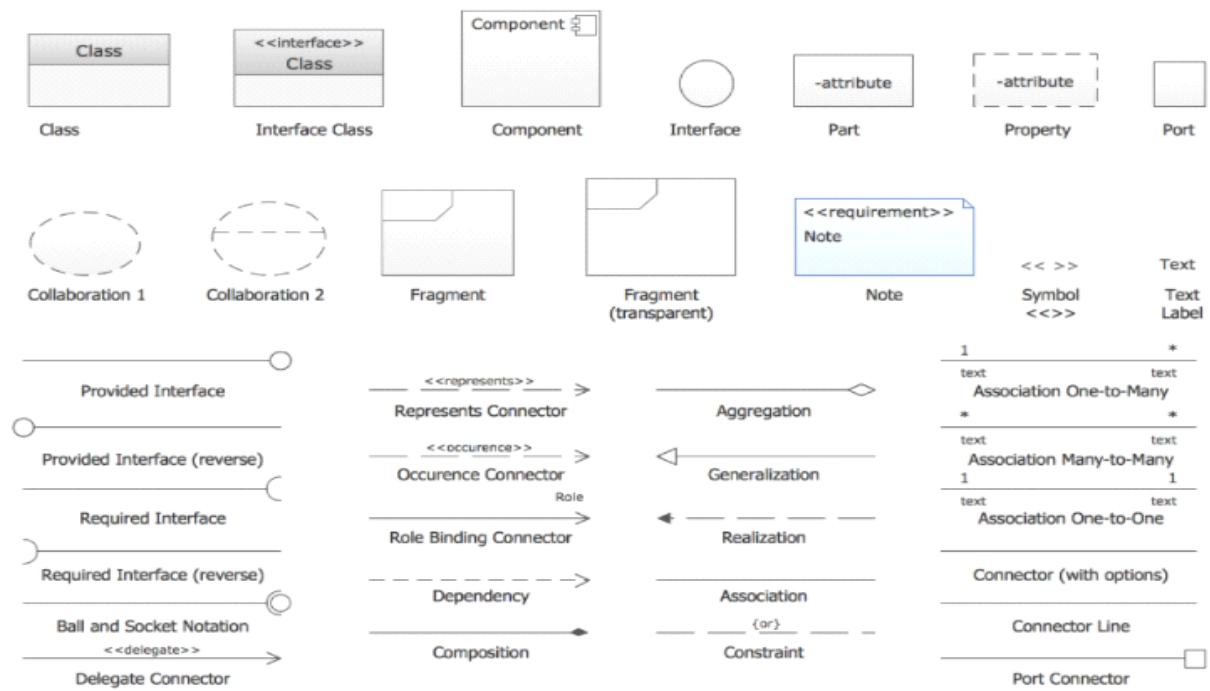


**Figure 7: Architecture diagram**

## 5. DETAILED DESIGN

### 5.1 CLASS DIAGRAM

Class diagram is a reference where the structure is described in the format of classes attributes operations in the relationships



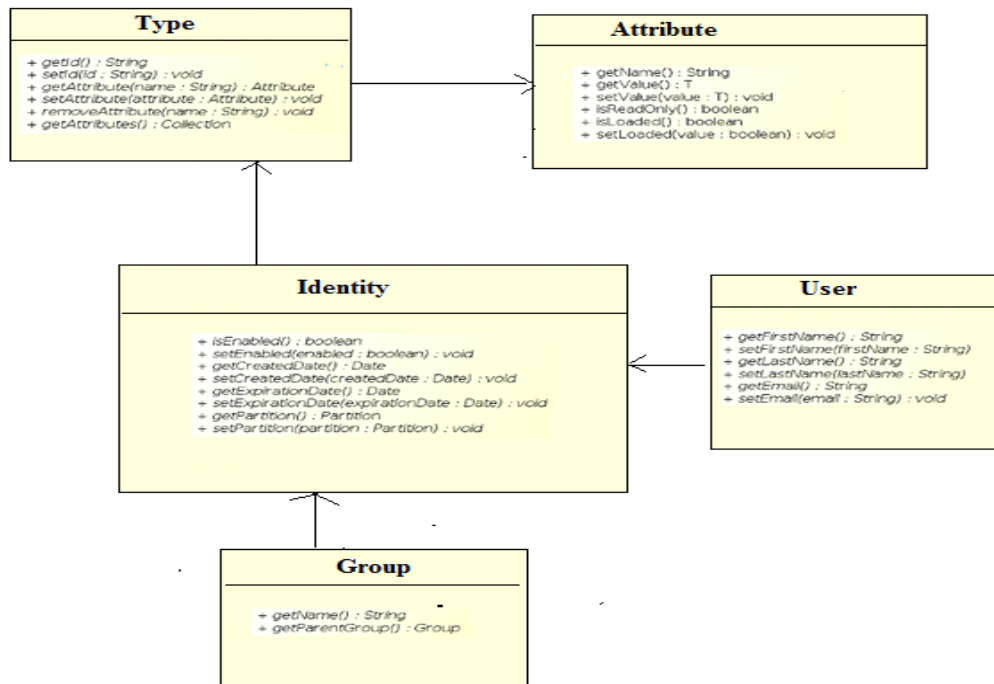


Figure 8: Class diagram

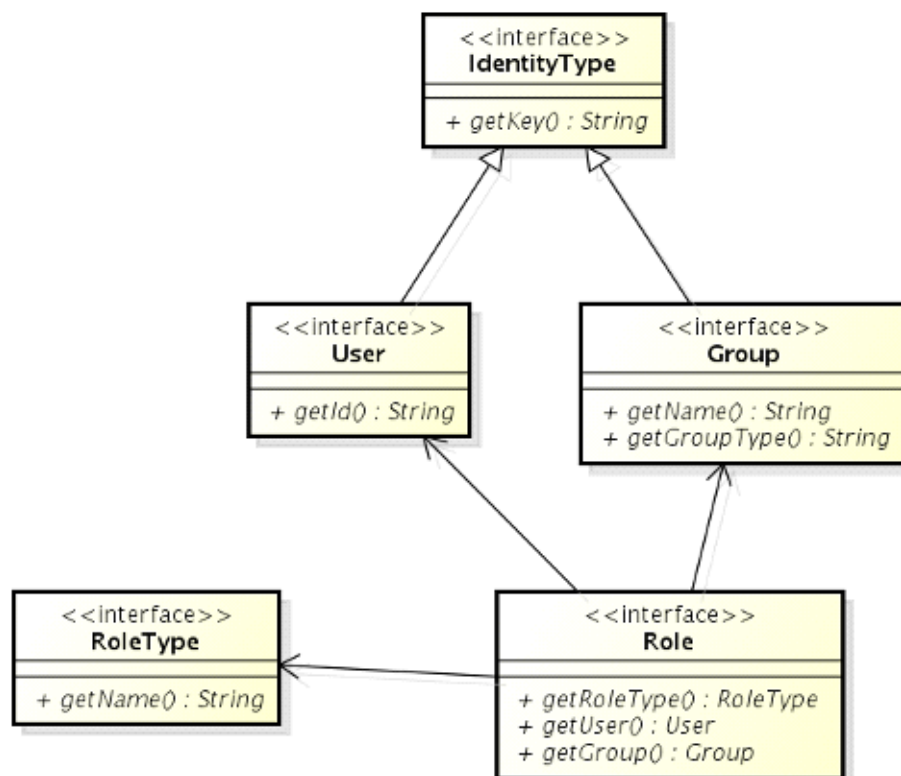
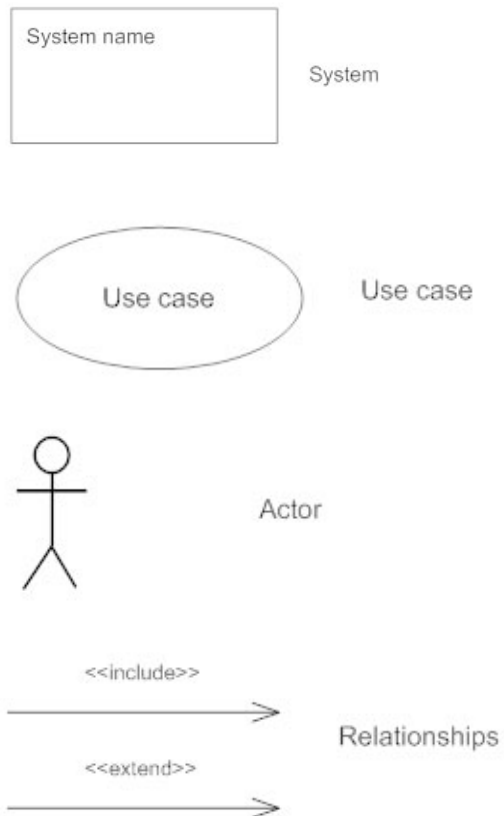


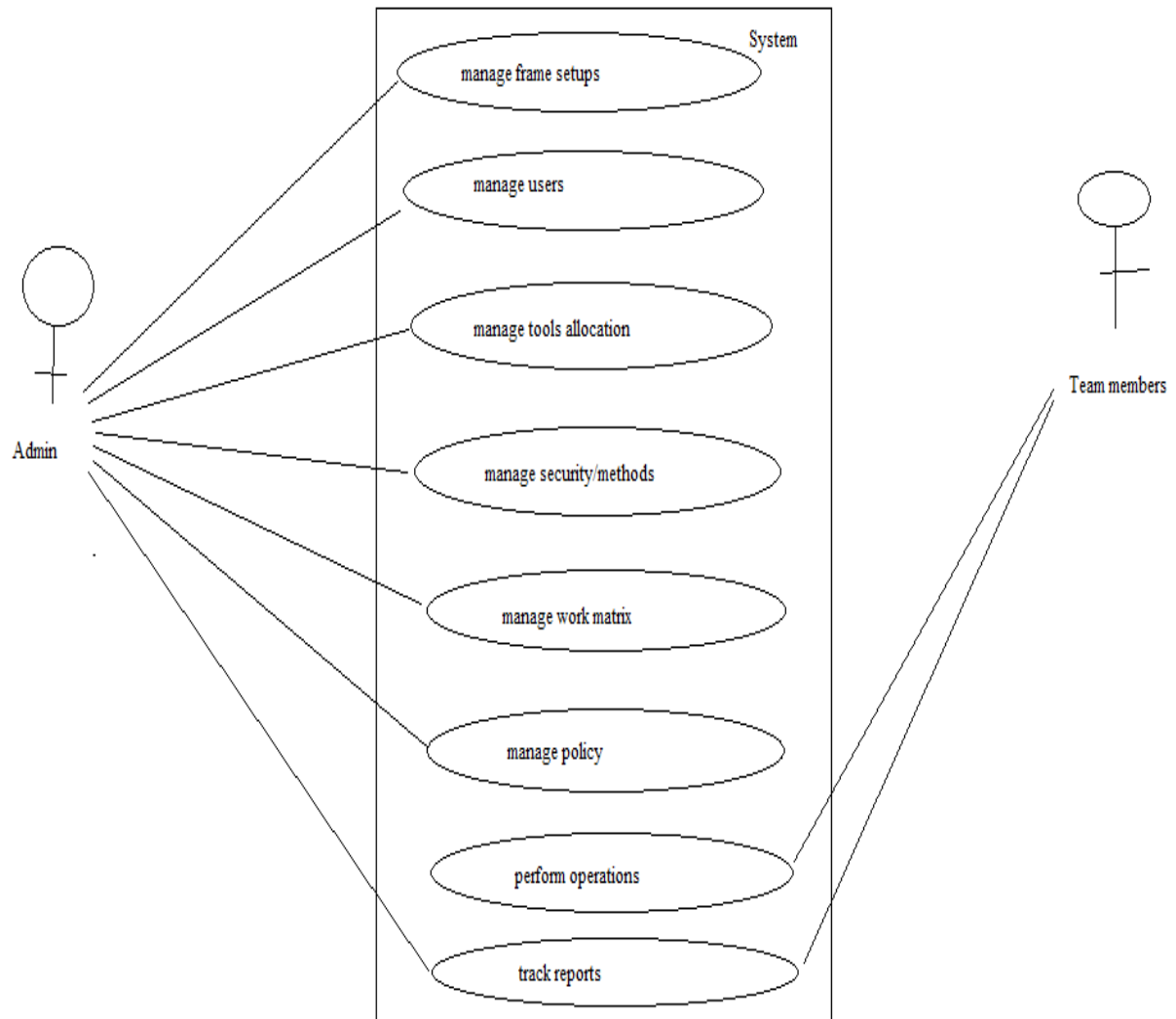
Figure 9: Class diagram

## 5.2 USE CASE DIAGRAM

For accomplishing a particular goal the interactions between the external act and the system is being considered in terms of use case diagrams



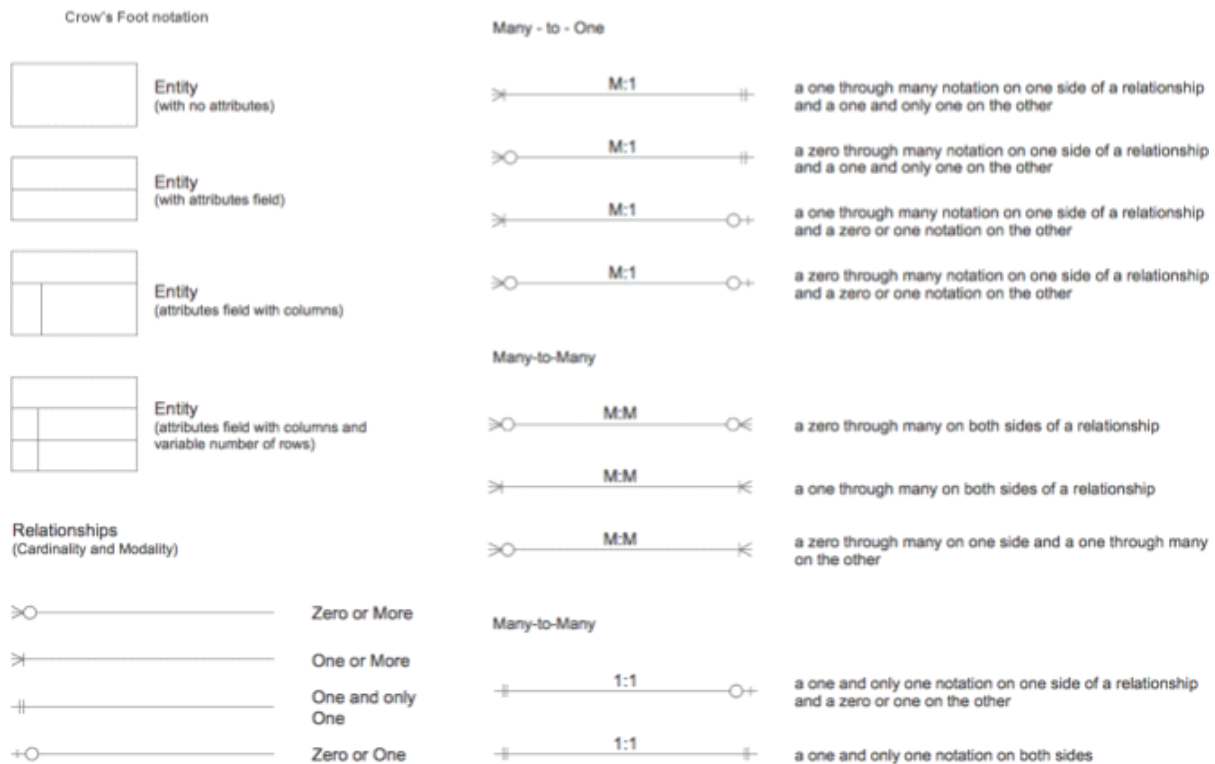
**Figure 10: Notations**

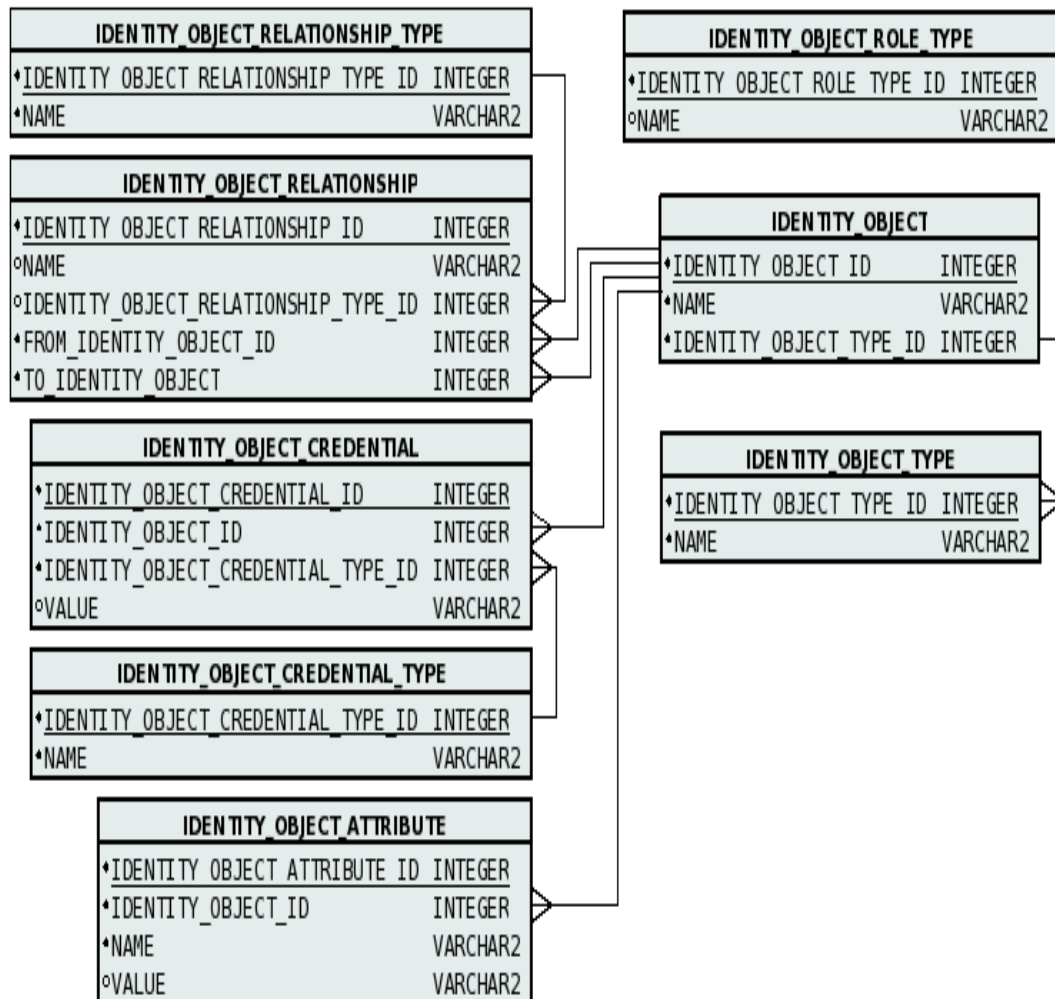


**Figure 11: Use case diagram**

### 5.3 ENTITY RELATIONSHIP MODEL

Entity relationship model is a high level conceptual model which helps us to analyze data requirements and it is helpful for well-designed database





**Figure 12: ER diagram**



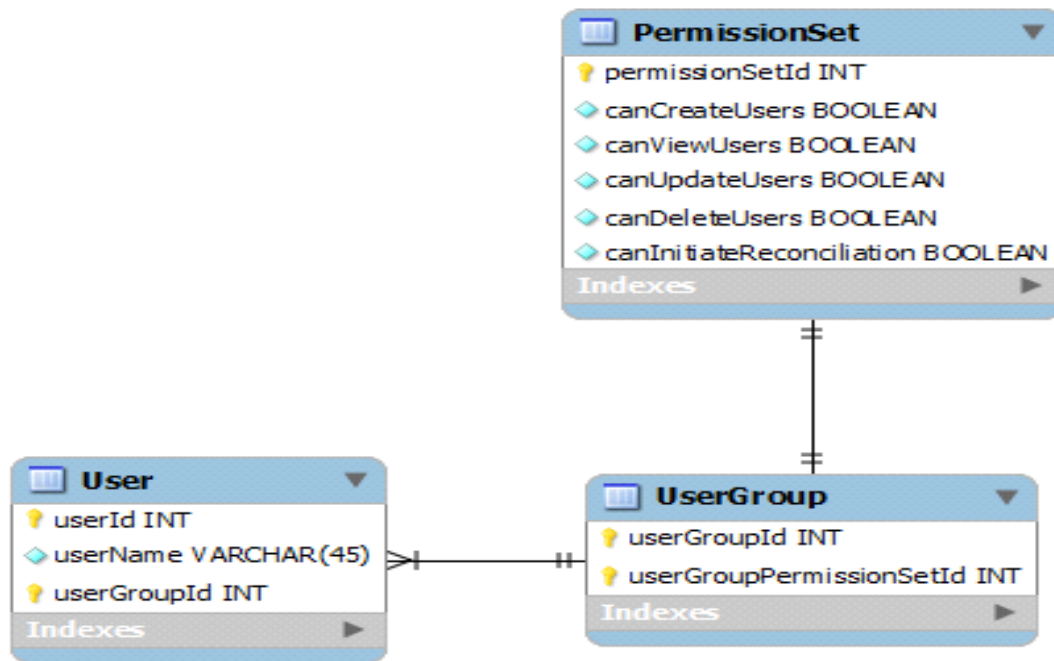
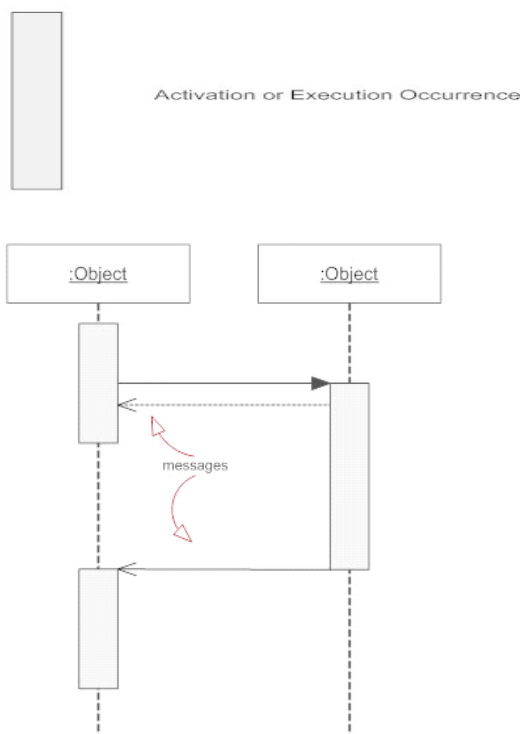


Figure 13: ER diagram

## 5.4 SEQUENCE DIAGRAM

Sequence diagram represents individual use cases where external actors and the related messages that are invoked will be shown



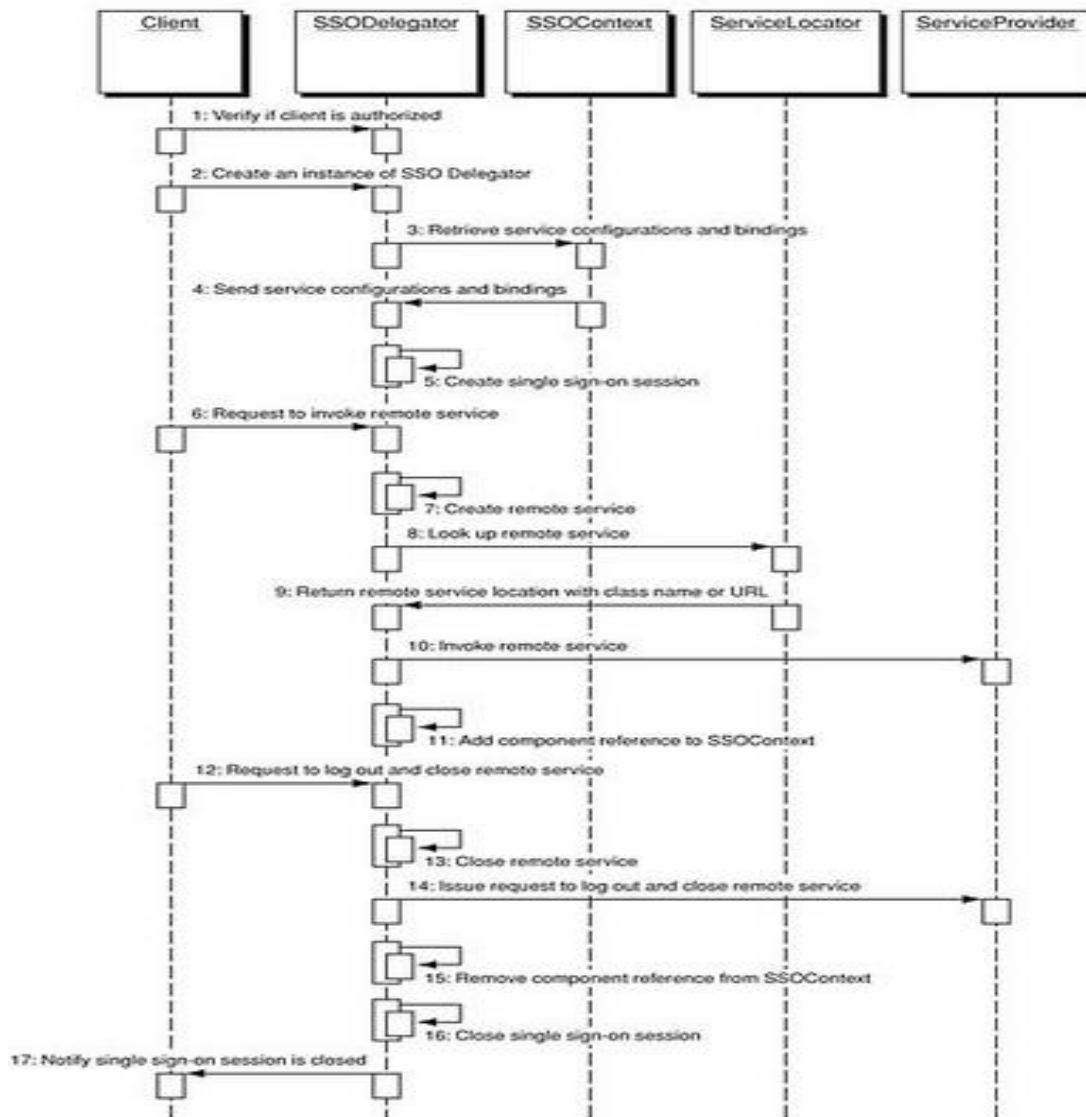


Figure 14: SSO sequence diagram

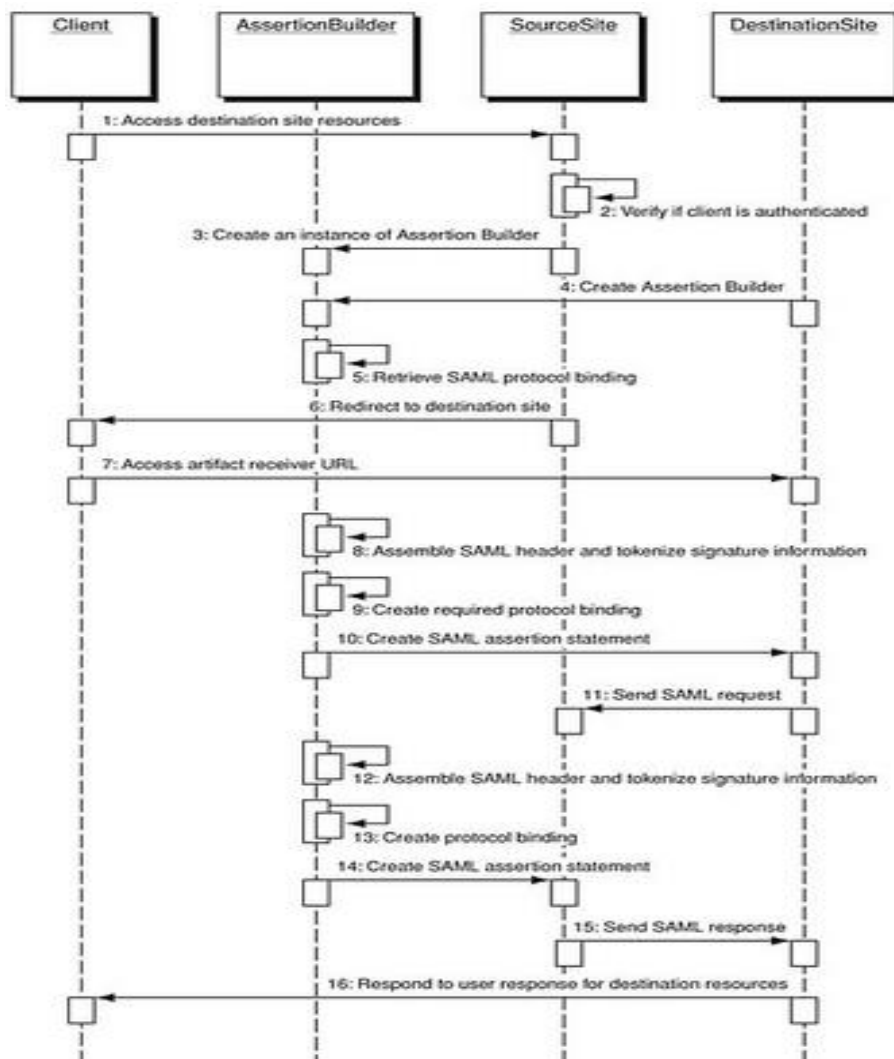


Figure 15: Sequence diagram

## 5.5 PACKAGING DIAGRAM

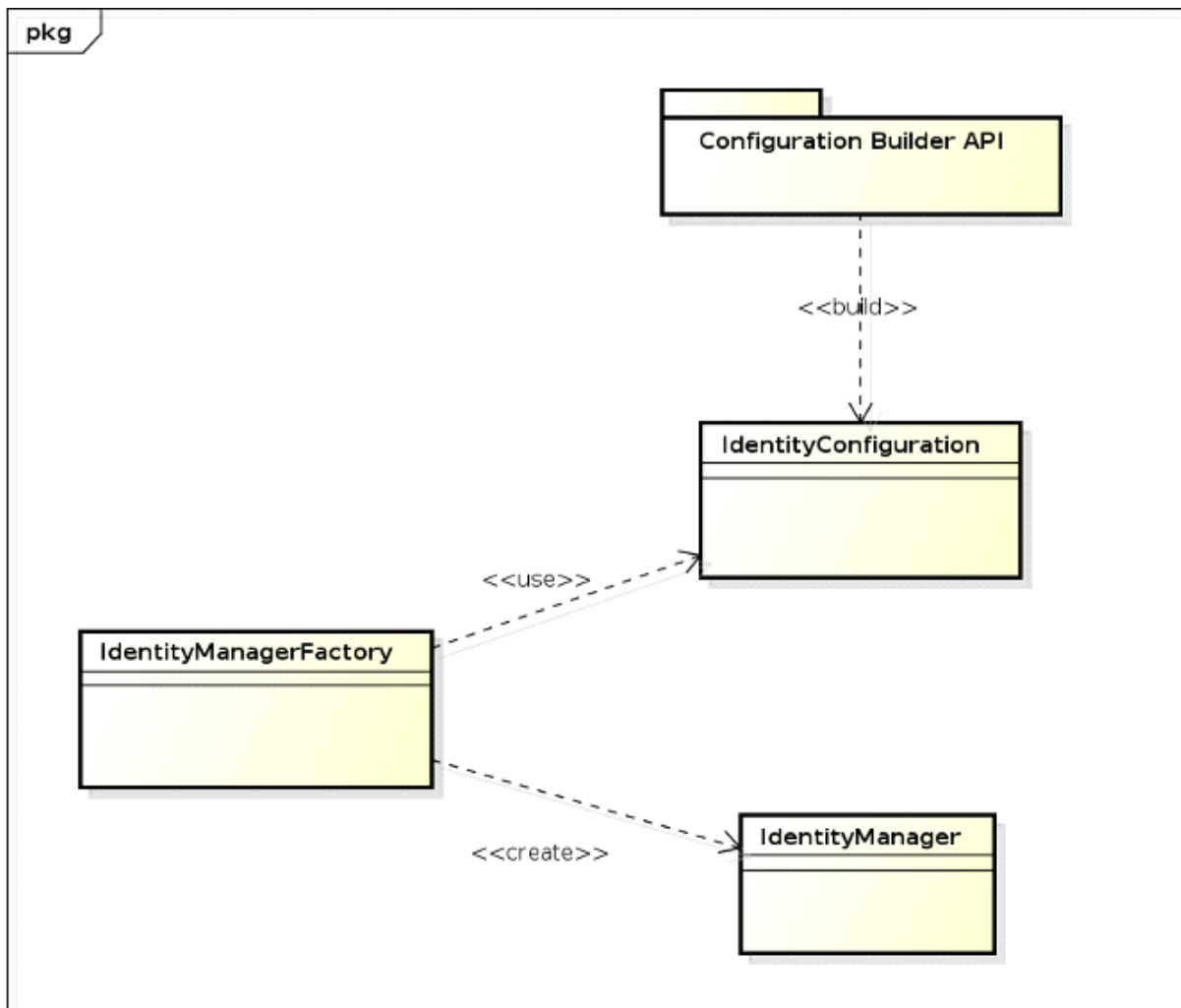


Figure 16: Package diagram

### 5.6 ACTIVITY DIAGRAM

Activity diagram is designed to understand the flow of one activity; multiple sequential branches are related so that all types of flow control can be defined between the elements

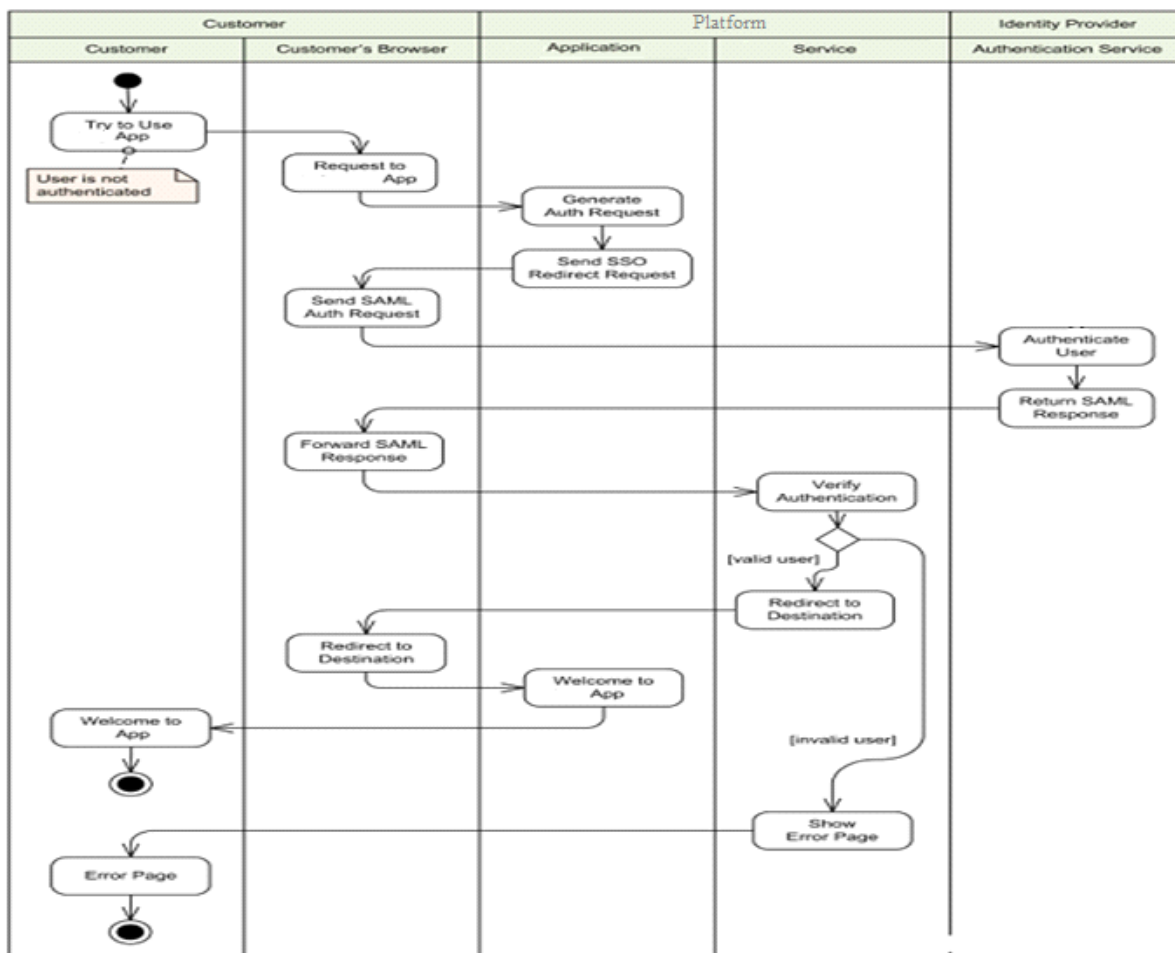
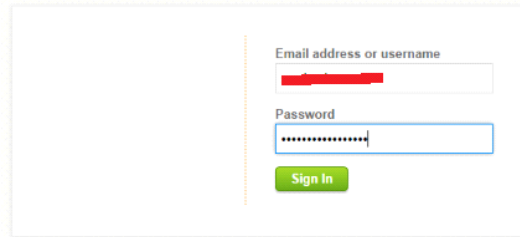


Figure 17: Activity diagram

## 6. IMPLEMENTATION

### 6.1 SCREEN SHOTS:

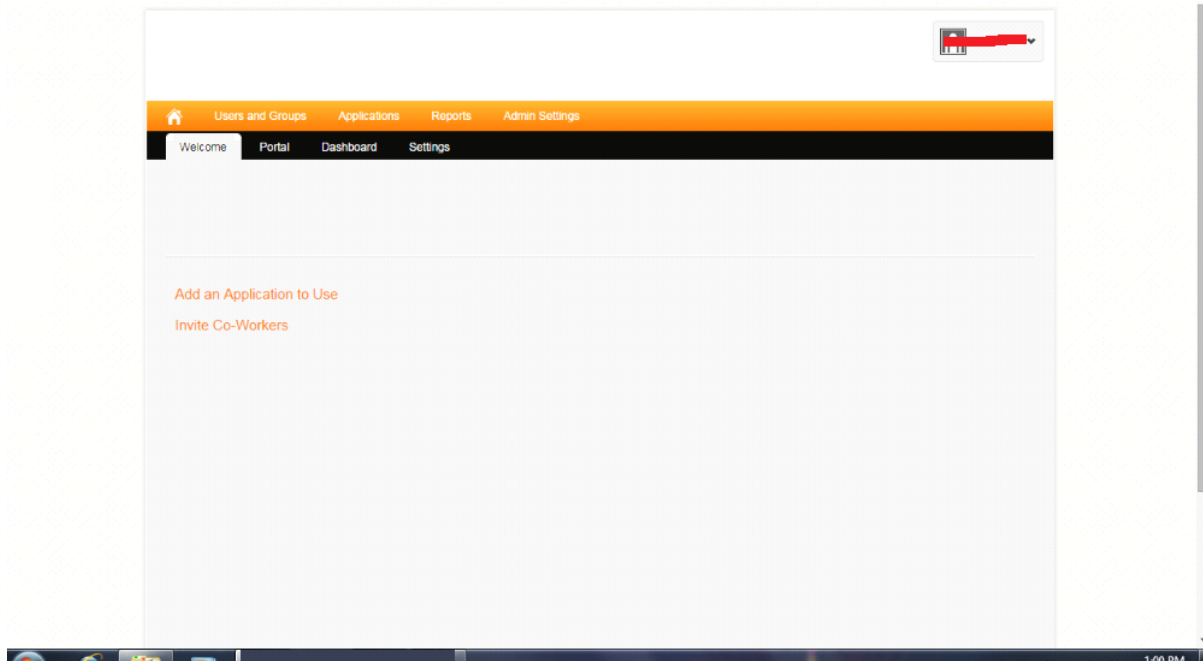
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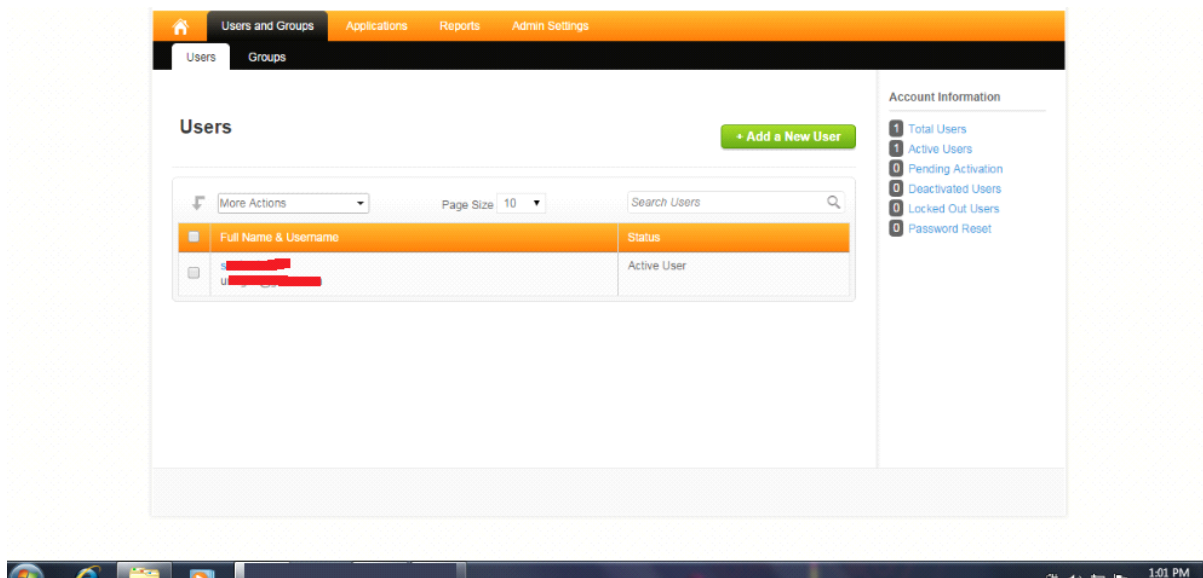
The screenshot shows a login form with two input fields and a button. The first field is labeled "Email address or username" and contains a redacted value. The second field is labeled "Password" and contains a series of dots. Below the fields is a green button labeled "Sign In".



**Admin login**



### Base-page provided with settings



### Teams and user activations

Users and Groups Applications Reports Admin Settings

Users Groups

Groups [+ Add a New Group](#)

[Rename Group](#) [Delete Group](#) Page Size 10 Search Groups

| Group name  | Description | Users | Apps |
|-------------|-------------|-------|------|
| All Users   | Built in    | 1     | 0    |
| Super Admin | Built-in    | 0     | 0    |

Account Information  
2 Managed Groups



## Group's management

Users and Groups Applications Reports Admin Settings

Enterprise Apps Application Catalog Custom Apps

Applications [+ Assign Application](#) [+ Add Application](#)

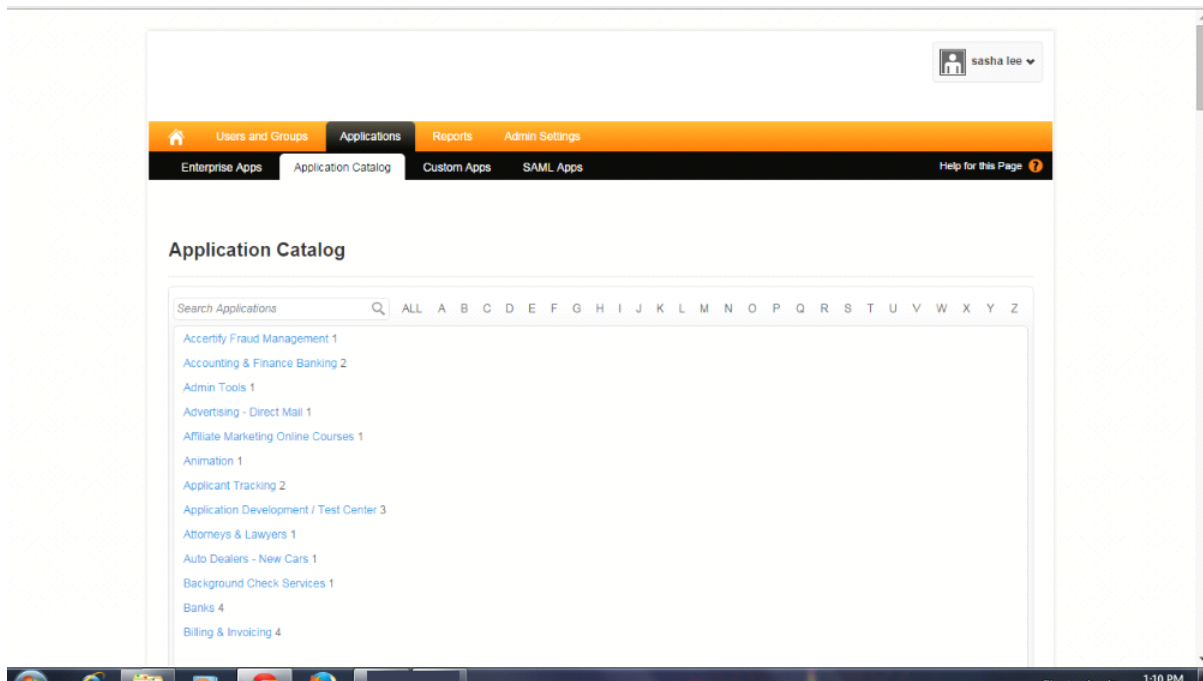
[Delete Application](#) Page Size 10 Search Applications

| Applications | Description | Users | Groups |
|--------------|-------------|-------|--------|
|--------------|-------------|-------|--------|

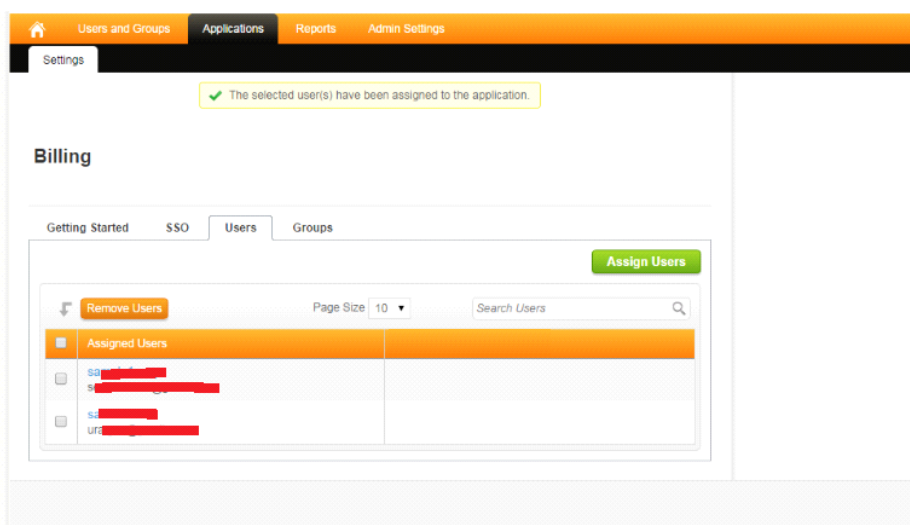


## Selective applications





### Catalog reference with different resources



### Allocation of the users

**Reports**

Date Range: 9/7/2020 to 9/7/2020 Search: Name, e-Mail or IP Address... Action Types: Select Action Type(s)

Export Report Run Report

| Date/Time         | Users                            | Action                       | Details                                 |
|-------------------|----------------------------------|------------------------------|---|
| 9/7/2020 13:15 pm | sasha lee<br>u[redacted] (9,236) | Assigned user to application | assigned user(s) to application Billing |
| 9/7/2020 13:13 pm | sasha lee<br>u[redacted] (9,236) | Added Application            | added new application Billing           |
| 9/7/2020 13:7 pm  | sasha lee<br>u[redacted] (9,236) | Created New Group            | created new group new 1                 |
| 9/7/2020 13:5 pm  | sasha lee<br>u[redacted] (9,236) | Created new user             | created new user account sample1 emp    |
| 9/7/2020 12:51 pm | sasha lee<br>u[redacted] (9,236) | Login                        | logged into                             |

### Reports generated with details of filters

**Admin Settings**

**Authentication**

Enable 2-Step Verification on Users:

Method:  Image Shield

Number Of Categories Required During Enrollment/Authentication: 2

Prompt User for Extra Verification

Once per Session  
 Once a day  
 Once a week  
 Once a month  
 Only once

Apply: All Users

Save Changes

### Factor security methods

**Admin Settings**

**Login**

Failed Logins:  Notify admins of failed login attempts: 3

Logins:  Allow users to use the 'Keep me signed in' feature

Lifetime: Number of days that you want persistent cookie to last: 10

Invalid Login Attempts:  Number of Invalid Login Attempts Before Lockout: 3

**Password Requirements:**

Password Policy:  Default  Custom  
The default password policy is 8 character minimum password length, at least 1 digit, and at least one uppercase character

Character Settings:  Minimum required characters: 8  
Passwords must be at least these many characters long

Require number(s): 1  
Passwords must be at least these many digits

## Policy updates

**SSO**

**Desktop SSO Setting**

Desktop SSO:  Allow SSO Login

Remote Login URL:

Token:   
[Generate new token](#)

Allowed IPs:   
Your Machine IP: 200.1.1.1

New Users:  Enable

[Save Changes](#)

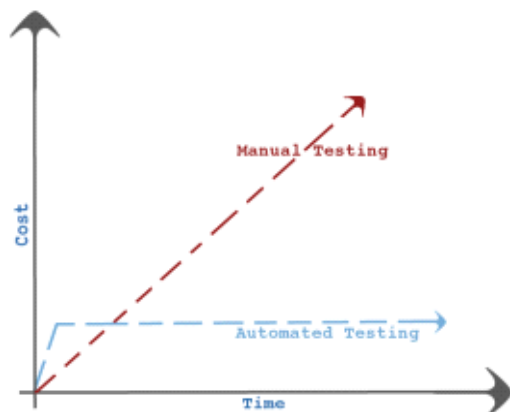
## Single sign on machine security

## 7. SOFTWARE TESTING

For the proper implementation and workability establishment of the system we have to provide proper testing tool to the users or we can say that whatever resources we are providing to the users with different types of feature should work properly when the users will be using the system. Software testing is very much important as it will help us to eliminate the cost of modification that will arise at the end if the features are not properly working.

Software testing can be done with different types of processes available in our case we will be using the unit testing as the prime software testing mechanism to check the variations and even we want that you should check the variation with the help of black box testing. All types of testing mechanism that will be performed will be documented also as we want that users should have detailed information about what type of testing features are being checked and how the system process the information.

testing will help us to associate the errors earlier. We want to established proper testing rules so we will be having a team discussion so that we can consider that what types of references will be utilized and we have outline the unit testing is a major reference so this will be helpful to obtain each prospective before the system is been acknowledged to the users this will help even to maintain the quality. Testing will be done with proper outlining of the test cases so that the acknowledgements in the future will be easier for the reference so detail documentations are also prepared.



**Figure 18:** The above figure shows automation testing in terms

**Unit testing**

References of the security data provided will be checked individually as we want to verify the compatibility and adaptability of the system

The references of the Collateral that are provided will be also checked as it has to be utilized on the individual frames with different setup

All types of units that are included for the user associations will be checked as detail controlled accuracy is required to be provided

Unit testing will be done in different variations as after that only the regression testing and integration testing will be performed

The individual associations unit testing is very much important as all the references can be checked properly at the earliest age and each reference will be documented with the help of test cases.

**Black- box testing :**

Black- box testing is done to be in reference to the client check where related link are will be provided and in reference to which the users will check the responses by them

Black box testing will be considered as the important cause the quick information acknowledgement can be done

Code reference knowledge is not required

## 7.2 TEST -CASES:

| Series | Test-cases            | Test-Inputs provided   | Results                          | Actual-result                                      | Test Status | Severity |
|--------|-----------------------|------------------------|----------------------------------|--|-------------|----------|
| 1      | Admin interface check | Inputs of login        | Frame for the admin provided     | Reference admin control provided                   | Pass        | Critical |
| 2      | Workers               | Inputs for users added | Details added                    | Workers added                                      | Pass        | Critical |
| 3      | Tools                 | Selective              | Added on the page                | Tools added and allocated                          | Pass        | Critical |
| 4      | Task                  | Input rules provided   | Different reference added        | Task allocated and notification provided           | Pass        | Critical |
| 5      | Info generated        | Auto                   | Custom options provided          | System provides different reference of information | Pass        | Critical |
| 6      | Working-Alerts        | Unrelated input        | Notification triggers can be set | Notification provided                              | Pass        | Minor    |
| 7      | Method-security       | Selective              | Selections based from options    | Settings provided                                  | Pass        | Critical |

|   |          |                  |          |                               |      |          |
|---|----------|------------------|----------|-------------------------------|------|----------|
|   |          |                  | provided |                               |      |          |
| 8 | Back-ups | Reference setups | Guided   | Reference data patterns added | Pass | Critical |

## **8. CONCLUSION**

Quick access different types of security mechanism are provided within the platform which is on the service which makes it more helpful in terms of cost also. We can conclude that system is designed so that when we have utilized it we found that various types of users can be included whenever required according to the highest and on then many types of policies can be established which will provide the accessibility security considerations more appropriately. We also found that system can be utilized for the variation of workability where different types of task is allocated and the sound that each task in different variations can be performed where we also found that categorical resources are also included to support the task.

We have utilized sufficient types of resources of severe types of data could be found it is much easier to perform the activity as multiple types of vendors are provided and the users will be having the choice of selection. We also found that system provides all types of incorporation in terms of the information analysis as we have utilized the report formation options to get different types of user bi reports to get detailed information about the workability that we have created.

We can conclude that system is well framed for different types of activities and we can include all those activities in such a way that only input consideration for required so even the standards are properly followed within the system. We can also say that also secure to method can be properly established where even the references of multiple techniques are implemented at the same time.



## **9. FUTURE ENHANCEMENT**

More contributions are required for enhanced working by the service provider as in the future new requirements may arise so different types of new provisions will be provided to the clients in the future and this will be discussed with regular interview. Some of the perceptions that can be added in the future are listed as following

Direct collaboration can be included with multiple types of process techniques this will help to work in more appropriate manner

More references of vendors can be added so that more choices and provided

Multi references of reports can be included for automated transfer in generation

## **APPENDIX A**

### **Java**

#### **BIBLIOGRAPHY**

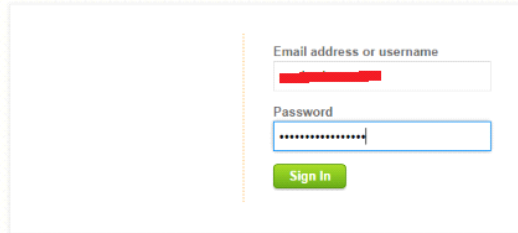
- "The Java 14!". Oracle arrived on March 17, 2020 and it was Retrieved on March 17, 2020.
- "Binstock, Andrew (May 20, 2015). "Java's 20 Years of Innovation". March 18, 2016.

Web referrals-

- [www.wikipedia.com](http://www.wikipedia.com)
- [www.scribd.com](http://www.scribd.com)
- [www.microsoft.com](http://www.microsoft.com)
- [www.google.com](http://www.google.com)

## APPENDIX B

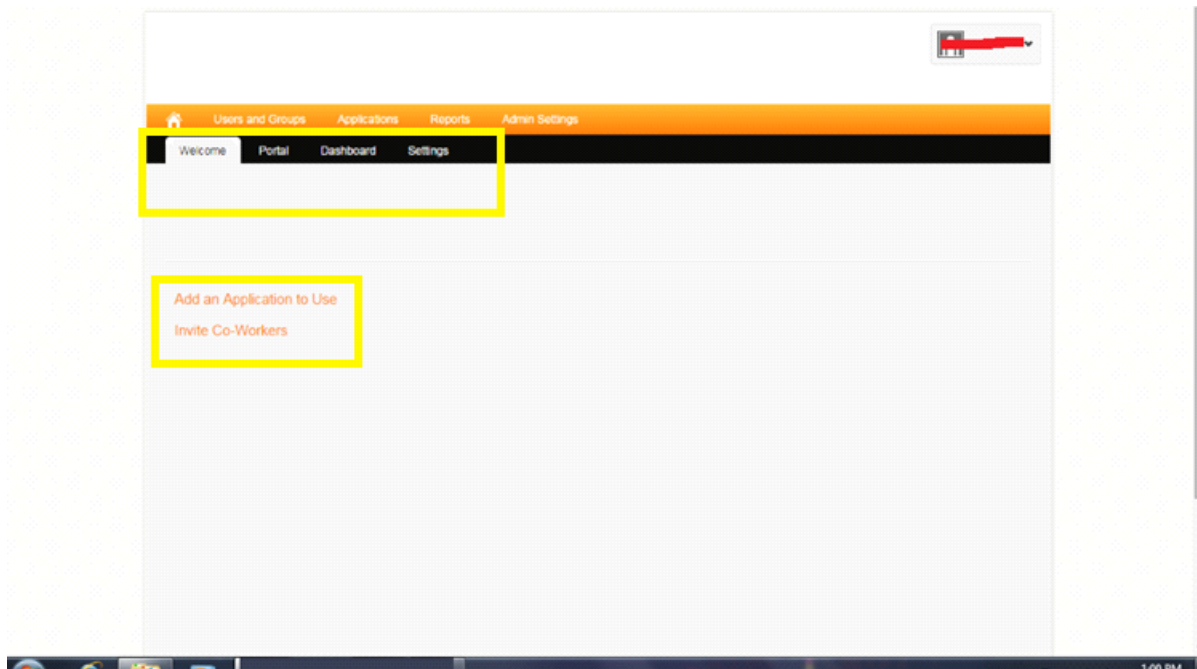
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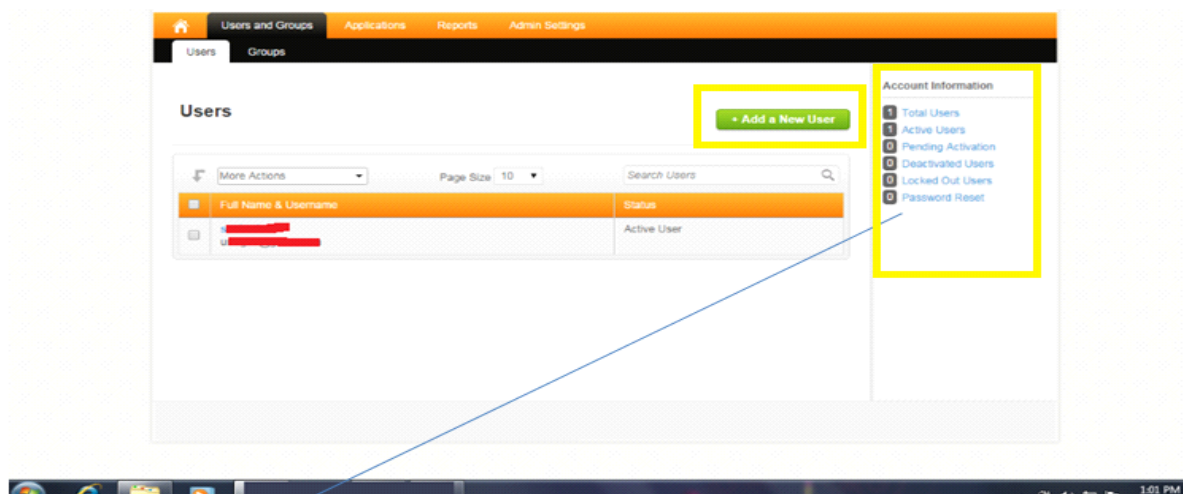
A screenshot of a login form. It features two input fields: the first is labeled "Email address or username" and contains a redacted value; the second is labeled "Password" and contains a series of dots. Below the fields is a green "Sign In" button. A vertical dashed line is positioned to the left of the input fields.



### Admin login



Base-page provided with settings(view design can be modified)



Teams and user activations

Users and Groups Applications Reports Admin Settings

Users Groups

Groups

+ Add a New Group

Account Information

Managed Groups

Rename Group Delete Group Page Size: 10 Search Groups

| Group name  | Description | Users | Apps |
|-------------|-------------|-------|------|
| All Users   | Built-in    | 1     | 0    |
| Super Admin | Built-in    | 0     | 0    |



### Groups' management

Users and Groups Applications Reports Admin Settings

Enterprise Apps Application Catalog Custom Apps

Applications

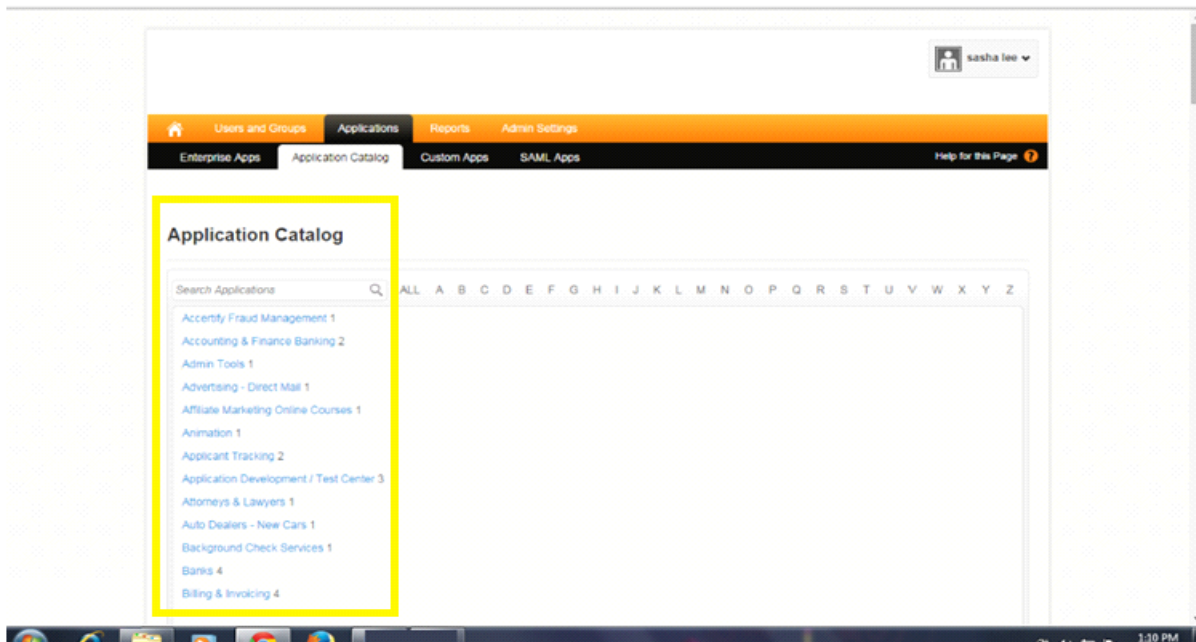
+ Assign Application + Add Application

Delete Application Page Size: 10 Search Applications

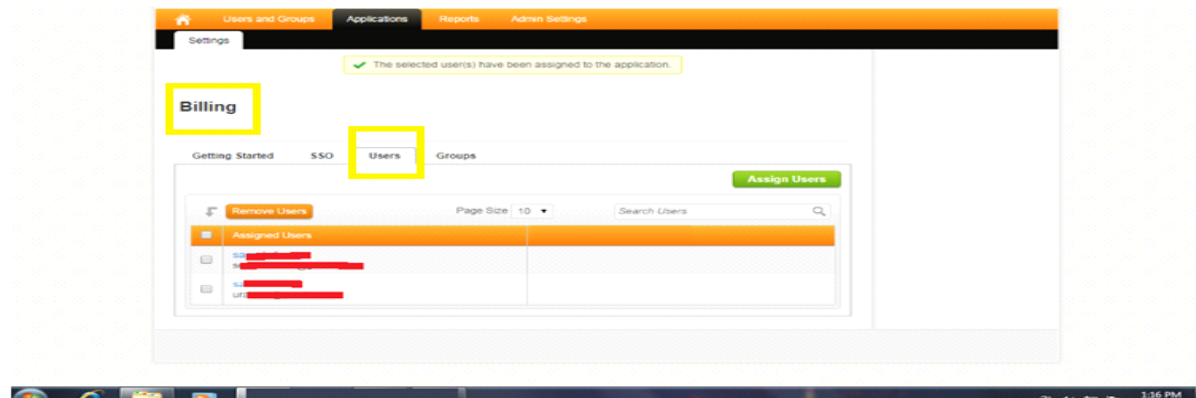
| Applications | Description | Users | Groups |
|--------------|-------------|-------|--------|
|--------------|-------------|-------|--------|



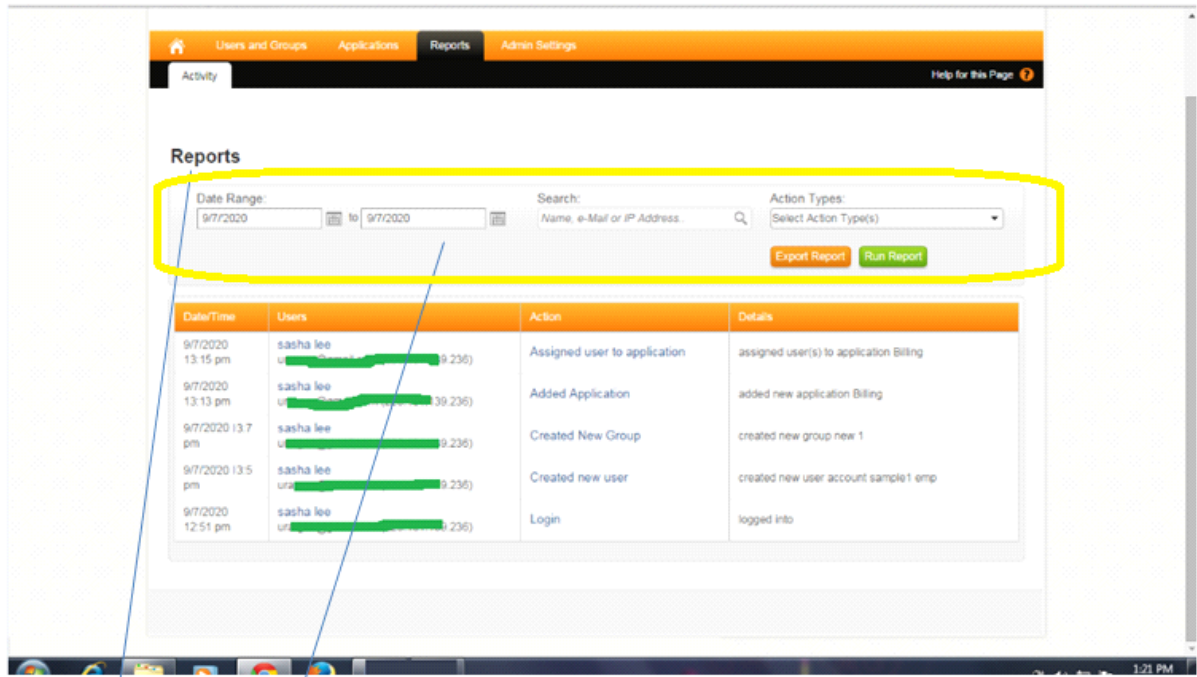
### Selective applications



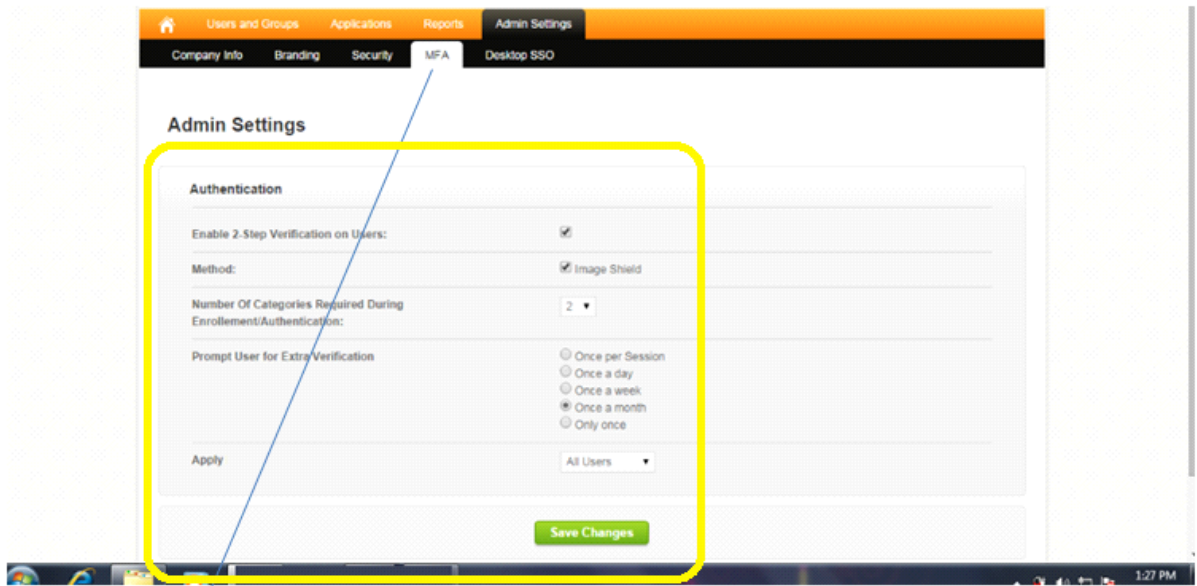
Catalog reference with different resources



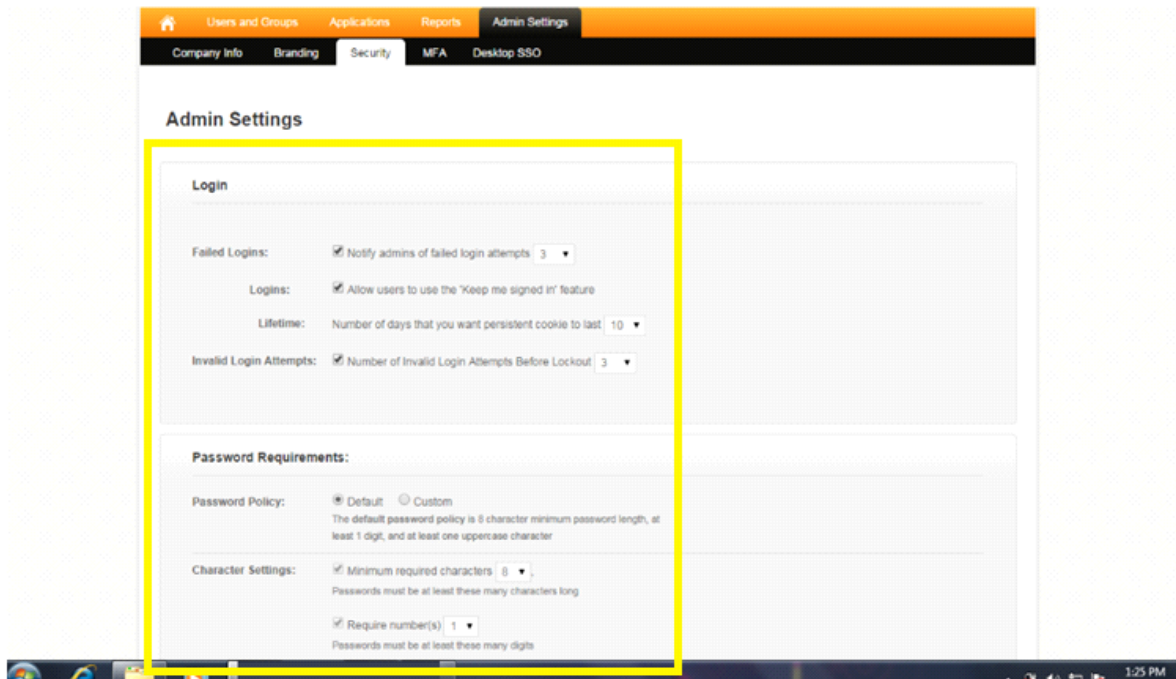
Allocation of the users



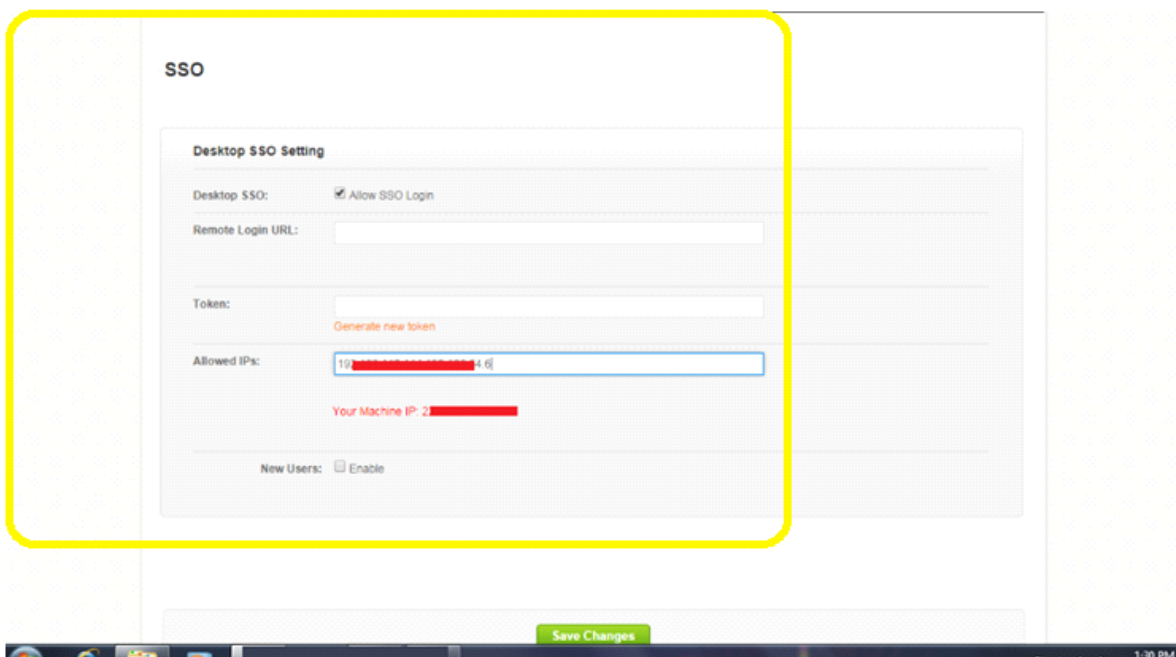
Reports generated with details of filters



Factor security methods



Policy updating



Single sign on machine security



