

A project report on

E-MONITORING the TRANSACTIONAL WORKFLOW

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

MASTER OF COMPUTER APPLICATIONS
Of



Visvesvaraya Technological University
Belgaum, Karnataka

By

DIVYA SHREE S
1CR17MCA06



CMR INSTITUTE OF TECHNOLOGY
132, IT Park Road, Kundalahalli, Bangalore-560037
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Under the guidance of

Ms. Gomathi T
Asst.Prof & HOD
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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

E- MONITORING the TRANSACTIONAL WORKFLOW

*Submitted in partial fulfillment 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*

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during the academic year 2019-2020.

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DECLARATION

I, **DIVYA SHREE S**, student of 6th sem MCA, **CMR Institute of Technology**, bearing the USN **1CR17MCA06**, hereby declare that the project entitled “**E-Monitoring the Transactional Workflow**” has been carried out by me under the supervision of External Guide **Mr. Sidhartha Rath**, Assistant Manager, and Internal Guide **Ms. Gomathi T**, Asst. Professor & HOD, 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 report has not been submitted to any other University or Institute for the award of any degree or certificate.

Place: Bangalore

DIVYA SHREE S

Date:

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ACKNOWLEDGEMENT

I would like to thank all those who are involved in this endeavor 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. Sidhartha Rath**, Asst. Manager-IT, Collins Aerospace, Bangalore, and to my Internal Project guide **Ms. Gomathi T**, Asst. Professor & HOD, Department of MCA, CMRIT, Bangalore without whose help and support throughout this project would not have been this success.

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Collins Aerospace
A United Technologies Company

June 26, 2020

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Divya Shree Srinivasulu** studying in **CMR Institute of Technology** whose USN is **1CR17MCA06** has successfully completed her Intern project with Collins Aerospace. She supported the Information Technology team on “**E-Monitoring the Transactional Workflow**” project from December 27, 2019 to June 26, 2020 under the guidance of Mr. Sidhartha Rath

We wish her good luck for future.

for Collins Aerospaces

Sanjukta Sarkar
Director - Human Resources

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1. INTRODUCTION

1.1 PROJECT DESCRIPTION

Dramatically, the cloud infrastructure were Research and impacts in all recent years, Service-based computing the scenes of industry. Cloud computing is now a provider Wide range of services, popular paragraph Computing, for example , software apps Shop, interactive network and capabilities. These are offered by cloud service providers Utilities Internet customers via Price charge. The apps are unique Includes: availability of cloud services Public or private network accessibility Internet access, usually.

Utilization Servers like police resources, applications, applications, Storage or CPU Time. Favorable reaction Wide-ranging supply and workload continue resources. Features of the individual service behavior requirements of the customer. The Standard Online computing corporate framework There are three layers in types, where each layer is The basis (basic structure or) can provide Top layered services execute platform.

Infrastructure the service layer below is an application (IaaS) Offering links to computer Collection and writing of material resources able to do so. Computing power given by IBM Digital Cloud Amazon EC21.The Business + 2 IaaS deals are examples. Platform provides service access Hosting and development of software (PaaS).The system Google software, for starters Microsoft Azure4 and Engine3 apps Include web development PAS features Hosting and programs. Ultimately, the SaaS is the way a software applications might get deployed to the internet market automatic scanning, and Internet connections Multi-locator.

SaaS helps consumers to use Wide network with remote control, for example Operation of customer relations by Cloud service authority for the fourth layer. The accommodation is at the top architecture house as a utility Market Operation The investigative (BPaaS) has increased past year impact.

Moving behind BPaaS Several Driving Concepts Company Services incorporated, and will then be addressed to customers your BPASS service is targeted at popular or established organization naturally application of processes requires great potential. There are a lot of business or

administration. This appeal as a complex item Low expense, low risk emissions provides customers free alternative for business activities.

Import Objective Areas like configurable Applications and Configurations for Cloud infrastructure or company process models appropriate. Build the associated work and the on our analysis related BPaaS applications as well as to the agreement. Categories in it classes, i.e. help, focus group business process modeling, and precision, concentrate on method testing. Assistance Price has to do with the market cycle express point of view allowed. The procedure testing the quality of testing approach when business is a company. The structure is not explicitly processed. The price is left unchanged, including the amount.

Explain if such services are necessary are able to model and provide data and finally, configurations, origins of Domain barriers for expression for domain barriers compared. The quality of precision identifies the confirming features for the model or for modification. Method concept constructs or comparisons shift in the actions of the behavior like authenticity or artificial behavior precision.

Any methods could also be to identify the Model for layout analysis problems such as these or linear inconsistencies dependency final identification of quality apps input system specifications characteristics such as more complicated conduct requirements. Cloud Service Management to date, most emphasis on SaaS setup. There are also questions concerning this strategy Configuring BPaaS for starters and coping with domain management needs of the client. Set the property characteristics. The program may contain the user interface Structure, records, control of access and other Functions.

Many points of view have issue of multi-tenant SaaS growth Runtime. Many leasing facilities can be managed deal with the same number of customers Example of software, so that impairs the specific layout of any interference per client. Service for new client's service is needed in runtime. Prepare to satisfy your needs, current customer support still. Over the duration of the case where the early area for the configurable BPaaS re-search field work which was in related fields which has the business related processes and configuration Models of comparison is ongoing for a couple of years.

Most methods are permitted during business configuration while others check configurable processes Process business models for accuracy or a set of all valid properties Client settings to choose from.

Web-based business is not appropriate for all businesses because there is no one in the Web-based business innovation which can or should be adequate to any need. Another miracle is not web-based business; online transactions, Online company and electronic information sharing. Use of electronic trades of information, method of working together common and non-restricted. The protection is the most relevant via the electronic communication improving the protection of money exchange through the installment exchange.

Cloud services have dramatically impacted service-oriented computing in both research and industry in recent years. A wide array of services, like software applications, computer capabilities, storage and virtual platforms, have become a popular paradigm for cloud competitiveness. Cloud service providers can pay-by-use these services to customers over the Internet.

Use of a various pooled and variety of resources including all the server related application, software, Central Processing Unit timing and data. Dynamically load there response to the work load via resource supply and release. Servicing the recorded behavior for the well-known property which is easily configurable to ensure that they meet the all the customer needs.

There are three layers in the typical hierarchy of cloud service forms in which there are layers & each one of the layer will ensure in providing basis information and a platform where the customer activity of the level services. Service Infrastructure is a single bottom most layer for accessing virtually enabled physically restored resource which can of any kind for example the storage capabilities or the computing. The IaaS products are samples of the software resources accessible from Amazon EC or IBM Smart Cloud Enterprise. The Service Platform (PaaS) offers access to software development programs as well as frameworks. For example, for web application development and hosting, both Google App Engine³ and Microsoft Azure include PaaS features. In addition, software as a service is used in which such a method which easily accessed by to Internet, automatic scale up and down for multipurpose. Software as a service

(SaaS) is used. SaaS helps customers to use complex software systems remotely including customer relations that Salesforce.

The Business Process as a service or the BPaaS in recent years has more interest, has been the fourth proposed layer for the cloud services architecture residing above SaaS. The purpose behind BPaaS is to turn multiple service companies into a corporate process system that can then be provided with the service to serve all the consumers of the system.

Naturally, Business Process as a service providers target the most simple and the well-established business activities and the processes they follow are applicable for a wide and broader market and the requirement to a multiple complex components managing system solutions. This is attractive for customers; because it offers a cheap, low risk of business activities.

By contrast, by using BPaaS-configurable because of its service-based nature, customers, whilst offering service to a greater potential market allows providers to make use of the economies of scale.

In fact, in contrast with conventional configurable market systems, BPaaS provides third-party platforms and with these external transactional issues primarily from the fact that more than one service provider has transactional requirements and has various supplier constraint.

In the inclusion while also introducing the next challenges. Some business customers, for example, may already have internal systems to manage certain steps, whereas smaller companies may outsource the services

However, it may be difficult to validate the right conduct and/or satisfy the specifications of a customer configurable components as a consequence, because explosion in state space impedes the test of broad models and customer requirements are complicated. Current business process configuration management strategies guarantee market controls on set-up options, allowing for simple consumer specifications such as functionality chosen or changes in operation. One region to be researched is to insure that domain restrictions and consumer transaction specifications are maintained during BPaaS setup.

1.2 COMPANY PROFILE

Collins Aerospace is a Raytheon Technologies Corp. company. It is a leader in advanced technologically and intelligent systems for defense industry and global aerospace. Established in the year 2018 by uniting Rockwell Collins and UTC Aerospace Systems. The main goal of Collins is manufacturing, designing and servicing systems and components for defense, commercial aviation, business aviation, military, helicopters, airports, space and other industries.

Collins Aerospace has six main business areas such as Avionics, Aerostructures, Missions Systems, Mechanical Systems, Interiors, and Power & Controls. Each unit serves its customers with intelligent solutions. This company has the capability to solve challenges faced by the customers and to meet the needs of the customers in the field of Aerospace evolving global market solutions.

The first engineering capability was opened by Collins Aerospace in Hyderabad in India in the year 2008. This center is comprised of software and hardware development which focused initially on flight management systems and design of displays. Nearly 650 employees contribute to work in Hyderabad location.

The headquarters is located at Singapore. The company as a whole in the Asia Pacific region effectively serves the commercial aviation and growing military customers. Collins in India operates on various products and capabilities. It ensures the international sales, strategy, marketing, operations, engineering, services & support. Collins is one of the world's largest manufacturers and suppliers of defense and aerospace products whose headquarters is present in Charlotte, North Carolina.

The presence of Collins Aerospace is worldwide, it has 70,000+ employees across 30 different countries whose annual sales of \$23 billion. Approximately the company operates in 150 sites in 25 different countries with almost 50% of the sites located outside the US. Collins partner with suppliers to provide integrated supply chain for all its customer. Services such as Engineering Services, Repair Services, Spare Parts, and Technical Support etc. are provided.

2. LITERATURE STUDY

2.1 PROPOSED AND EXISTING SYSTEM

Problem Statement:

The criterion for process formalism identifies how business processes express themselves in the approach. If the mechanisms of business operations are not expressly used, the meaning stays void. The following parameters suggest the capacity and configurability to model resources and data.

The nature and variety of BPaaS programs and infrastructure. The BPaaS is made up of heterogeneous services of the right service providers & a third party in this example. Two types of SaaS which is the SaaS 1 & the SaaS 2 systems were being in uses.

The same company is running and handling BPaaS. Private BPaaS-only internal software is also necessary. Two SaaS services come of foreign source, SaaS3 was the third party service, whereas the SaaS4 was a BPaaS that is has been posted on a platform such as an externally viable PaaS service. Setup was a crucial BPaaS domain, equivalent for other cloud hierarchy services. By using a business process which can be configured over the time it will affect the other relatable properties of the business process and can be affected, including workflow structure, resources utilized, and variables.

Existing Statement:

Current cloud infrastructure innovation management strategies are tailored to criteria such as equity of operation systems and the preservation of elasticity and multi-tenancy. In this field, we have yet to give the knowledge sharing service to all others who use the system to find complicated property of the system such as the requirements required to carry out a transaction successfully. The analysis in this report should ideally have a means of approaching a variety of occasions on a first stages which can be of BPaaS study.

Objective of the work:

E-Monitoring the Transactional Workflow project deals with the Internet plays a significant part in everyday life in this modern age. Ecommerce websites are therefore growing and growing. Those services are used by people to shop online, pay bill, etc. Since these processes save energy, however, when performing such businesses, health is important. Such websites are also likely to be targeted. And the account and payment details are also exposed. Websites for e-commerce use many security measures maintaining details private. These data include important data such as card number, account number, CVV, etc.

Although securities are permitted, many fraud attempts have caused the account holder problems. To solve this issue, the introduction of a new security framework called BPaaS service. It acts as an application from a third party, and helps reduce online purchase fraudulent behavior. That is what we are worried about. Paper increases the reliability of money defense and therefore prevents hacking. This is going to be really much helpful in company operations in particular

Proposed System with Methodology:

Work in the relevant fields such as configurable cloud infrastructure and configurable or adaptive business process models are increasingly essential. On the basis of our study of relevant research and the various implementations of BPaaS, which are illustrated in the examples, we define and group requirements in two categories: help, business process modeling, and reliability that are tailored to checking process consistency. The help requirements are related to the expressiveness of the contribution to the market method. The criterion for process formalism identifies how business processes express themselves in the approach. If the mechanisms of business operations are not expressly used, the meaning stays void. The following parameters suggest the capacity and configurability to model resources and data.

2.2 FEASIBILITY STUDY

A feasibility analysis is carried through to determine the chances that a project is successfully completed. Feasibility studies may often offer useful knowledge to a management firm, which would discourage it from joining dangerous companies blindly.

Feasibility studies are important to the development of businesses. This will allow an organization to determine where and how. It may also recognize possible obstacles to its activities and recognize the amount of financing it would require operating the firm. Faculty studies aim to promote marketing policies that can persuade investors or banks to make a wise choice by investing in a given project and company.

A prestigious institution in Boston's affluent neighborhood has sought to grow its campus. However, it managed to postpone the proposal, as the government had several concerns, about how it should extend. For more than a hundred years, the college has showed anxiety for the general image in the community. As in the past, specific forms of planning plans were dismissed by the city council. Finally, the College wondered how specific legal and political issues would impact the program.

All these doubts and uncertain details are strong reasons to carry out a feasibility study eventually carried out by the institution. In consequence, the school is now pursuing its expansion plans without leaving its historical home.

If a feasibility study had not taken time and effort, the college would have never known whether its dream expansion can become a viable reality. As it suggests, the feasibility study will be used to assess an effectiveness off a proposal, such as the legal, technological and economic effectiveness of a project. It asks us whether the expenditure is worth a project — a project will not be viable in certain situations. There can be many explanations for this, including the necessity for so many personnel, which would not only preclude the personnel from carrying out certain projects, but often expense more than a company can gain from taking on a less lucrative project.

A properly structured analysis will include a history of the company or initiative, e.g. product service definition, account records, organizational or administrative info, strategy report and strategy, finance details, regulating the specification and taxes obligation. Such studies usually succeed the production or execute of the technological proposal.

The importance given to a feasibility study analysis is dependent on corporate commitment to "rectify" until money, time and expenditure are devoted. A feasibility analysis could uncover innovative concepts that might alter the direction of a project entirely. Rather of running in and having the project out of position, it's better to make these determinations first. A feasibility report is also helpful to the project because it provides a good view of the planned project for you and the other stakeholders. The IaaS products are samples of the software resources accessible from Amazon EC or IBM Smart Cloud Enterprise. The Service Platform (PaaS) offers access to software development programs as well as frameworks. For example, for web application development and hosting, both Google App Engine³ and Microsoft Azure include PaaS features.

By contrast, by using BPaaS-configurable because of its service-based nature, customers, whilst offering service to a greater potential market allows providers to make use of the economies of scale. In fact, in contrast with conventional configurable market systems, BPaaS provides third-party platforms and with these external transactional issues primarily from the fact that more than one service provider has transactional requirements and has various supplier constraint.

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2.3 TOOLS AND TECHNOLOGIES USED

- **Microsoft Visual Studio 2019**



Microsoft Visual Studio 2019, a well-known Integrated Development Environment is usually used by the .net developers to develop various different websites used in daily life by the end customers. Even we can develop various web related application, mobile apps, web based service application, console apps, ASP .NET Core applications, MVC applications, Web APIs etc. Visual Studio enables us to use WPF (Windows Presentation Foundation), WindowsAPI, WindowsForms (WF). Native code & managed code will be produced. This IDE supports 36 different programming languages such as .NET, Visual Basic, C, C++, C#, HTML, CSS, JavaScript, Python, Ruby, TypeScript, F#, Java, Node.js, XML etc.

- **Angular**



Angular which is frequently named as Angular 2 + or the Angular v2 and the above versions which is said to be open-source web app framework based on Type Script conducted by the Google's Angular development team and a large community of corporations or the individuals. This can be used to develop the front end of the application. It provides features like dashboard, services, components, routing etc., which makes it easier to use by the developer.

- **MICROSOFT SSMS (SQL Server Management Studio)**



SSMS which is abbreviated as Microsoft **SQL Server Management Studio** was initially instigated by the Microsoft SQL Server 2005. SSMS is an application software which can be made use for the managing, composing and the regulating all the components. It contains tools such as script editor and visual symbolic mechanism which will service with the entity. The main characteristic of the SSMS software was the Object Explorer. This explorer would allow the end consumers to determine, graze and perform any operations on the entities which is saved in the application server. A separate Express edition was shipped that was freely downloadable. In the recent versions of SSMS we can manage and connect any SQL Server Express instance.

- **Visual Studio Code**



Visual Studio Code is an editor which is used to edit the source-code. It is made by the Microsoft for Windows, MacOS, and Linux. It has several features like intelligent code completion, debugging, snippets, syntax highlighting, embedded Git and code refactoring. Users can use the extra functionality such as keyboard shortcuts, theme, and preferences and install extensions. The source code is open-source and free. This tool is ranked the most popular among the developers.

- **C# .NET**



C# .NET, a programming lang that contains features such as lexically scoped, declarative, authoritative, collective, class based objects oriented, functional, strongly typed, & we can create various kinds of projects which can be used in daily life and real tine projects using this language. This is a multi-paradigm and general-purpose language. It was developed by Microsoft around the year 2000 as a part of .NET inventiveness. C# was designed for the CLI (Common Language Infrastructure).

2.4 SOFTWARE AND HARDWARE REQUIREMENTS

2.4.1 HARDWARE REQUIREMENTS:

Processor	Intel CORE i3 and above 2.60 GHz.
Hard Disk	457 GB
Random Access Memory (RAM)	8 GB

2.4.2 SOFTWARE REQUIREMENTS:

OS	Windows XP/7/8/10.
Coding Languages	C# .NET, Angular
Integrated Development Environment (IDE)	Visual Studio 2019 & Visual Code
Used Database	Sql Server Management Studio
Front end	Angular
Back end	.Net
Web technologies	HTML5, CSS

3. SOFTWARE REQUIREMENTS SPECIFICATION

3.1 Functional Requirements

Customer/User module:

In this section, customers can check for the cloud providers accessible to choose the service that they want the product, after choosing the service, only if the customer has the request Id and password they will sign in and pay for the service provider's account via electronic transfer process. This data will be forwarded to a service provider's account.

- Register and Login.
- View Profile.
- Create online Account, View Account Details, View Mini Statement, Deposit account.
- Search Products based on Keyword (Search based on Product Content + Product name) and View all details and purchase.
- View Purchased Products Status (Show status like it is purchased after Response from Bank).
- View all purchased products.
- Request load by feed necessity information.
- View Bank loan Approval Response.

Service module:

In this tab, the admin attaches the latest services to present to the customer. The customer then scans for eligible services, chooses the service needed and transfers to the list of purchases to pay for the service activation.

- Register and Login.
- Add products with id, name, description (encrypted), uses, manufacturer, price, attach image.
- View all products with rank and rating.
- View all total products purchased details with total bill.
- View User's Bank Transaction Behavior Verification details (request for product purchase and response from bank) with date and time.
- View all users Hold on purchased products details due to less amount in the Bank.
- View all users Released on purchased products details with date and Time.

Transaction module:

Upon selecting the service they want for online payment, the user is redirected to this page with the transaction module. In this transaction module, the user first requests a credit to purchase the service. After checking the username's details successfully, the bank admin should automatically approve the credit to the user account in its account number once the bank has approved the loan. The customer may pass the balance directly to the account of the service provider.

- Login.
- View products request from user and verify the user's available cash in Bank and approve if amount is available or else send reject status to corresponding user and Hold purchased order.
- Views all hold purchased order and verify the amount in the Bank. If amount is deposited and then release the order.
- View all Released Orders on purchased products.
- View all Users Bank Transaction Behavior Verification details (request for product purchase and response from bank) with date and time.

Admin module:

The management element connects the utilities to the customer side that are newly introduced. After login, admin can directly check your bank account details. We have both device details and vendor information in our administrative node.

- Login.
- View all users and Authorize.
- View all Service Providers and Authorize.
- View all products details with rank and rating with date and time.
- Show User Bank Transaction Behavior Verification details (request for product purchase and response from bank) with date and time.
- Show all user purchased products with date and time.
- Show all products rank in chart.
- Show all products price in chart.
- Show No. of products released and in Hold in Chart.

4. SYSTEM DESIGN

4.1 SYSTEM PERSPECTIVE

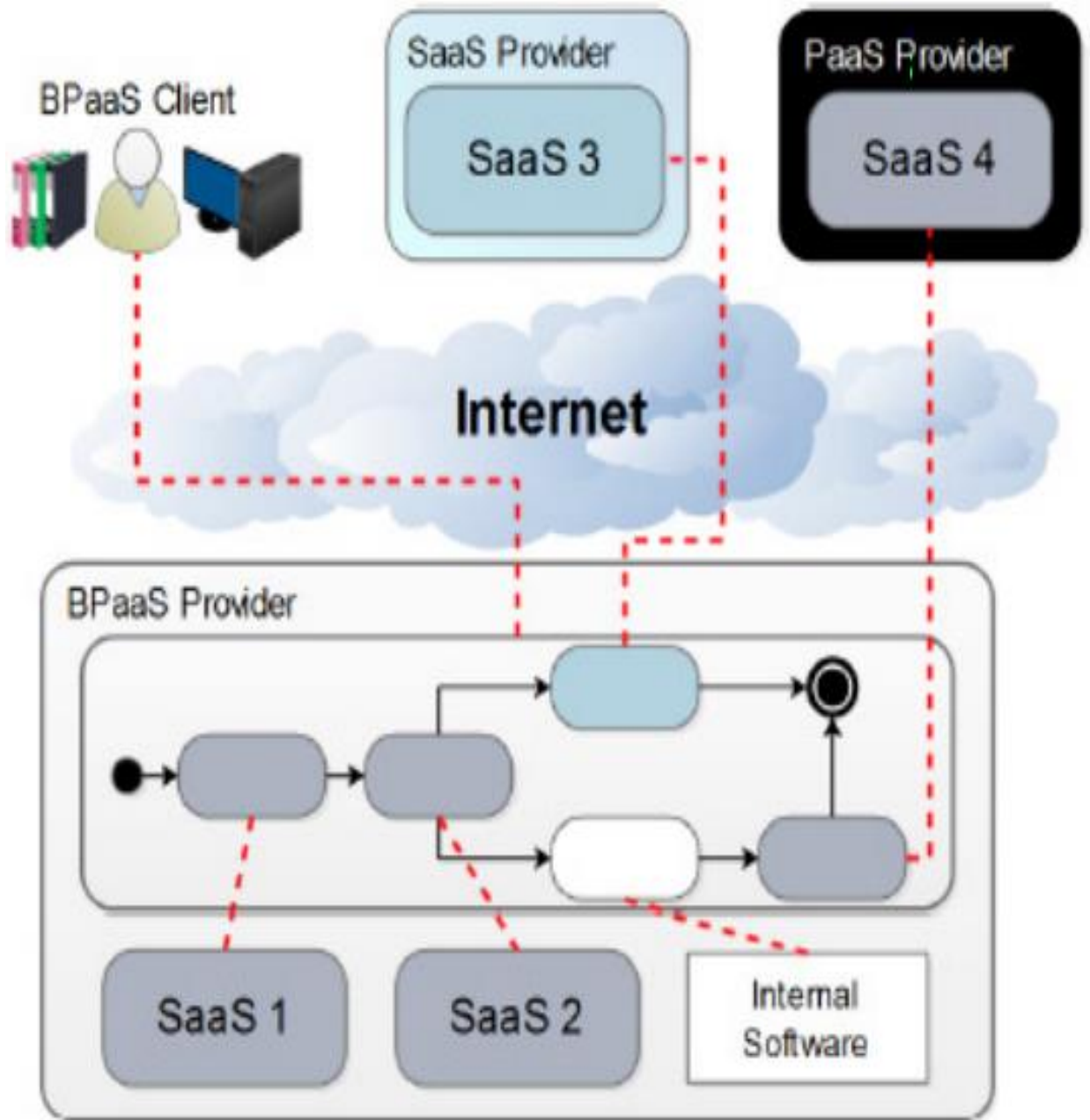


Fig.1 BPaaS Architecture

Before the sale they can be checked BPaaS specifications must be answered the background. To clarify our point of view further, this scene a platform built is called Shop BPaaS Shop Checkout. Small to medium scale consumers earn while the consumer is going to be web shops. This is what we are talking about. BPaaS is designed for commercial or digital sales Objectives Products, regular orders or pre-orders.

Put physical products and orders process New Virtual Products references for recovery. This customer includes specific work Receipt Payment information, authentication, Accounting and inventory change all Customer billing schemes and collection. Others can build their process structure met the market needs of their client. Just, for instance, all products may be removed from digital stores items distribution though shops do not stock limit the process to manage client details Guest Customers Unregistered.

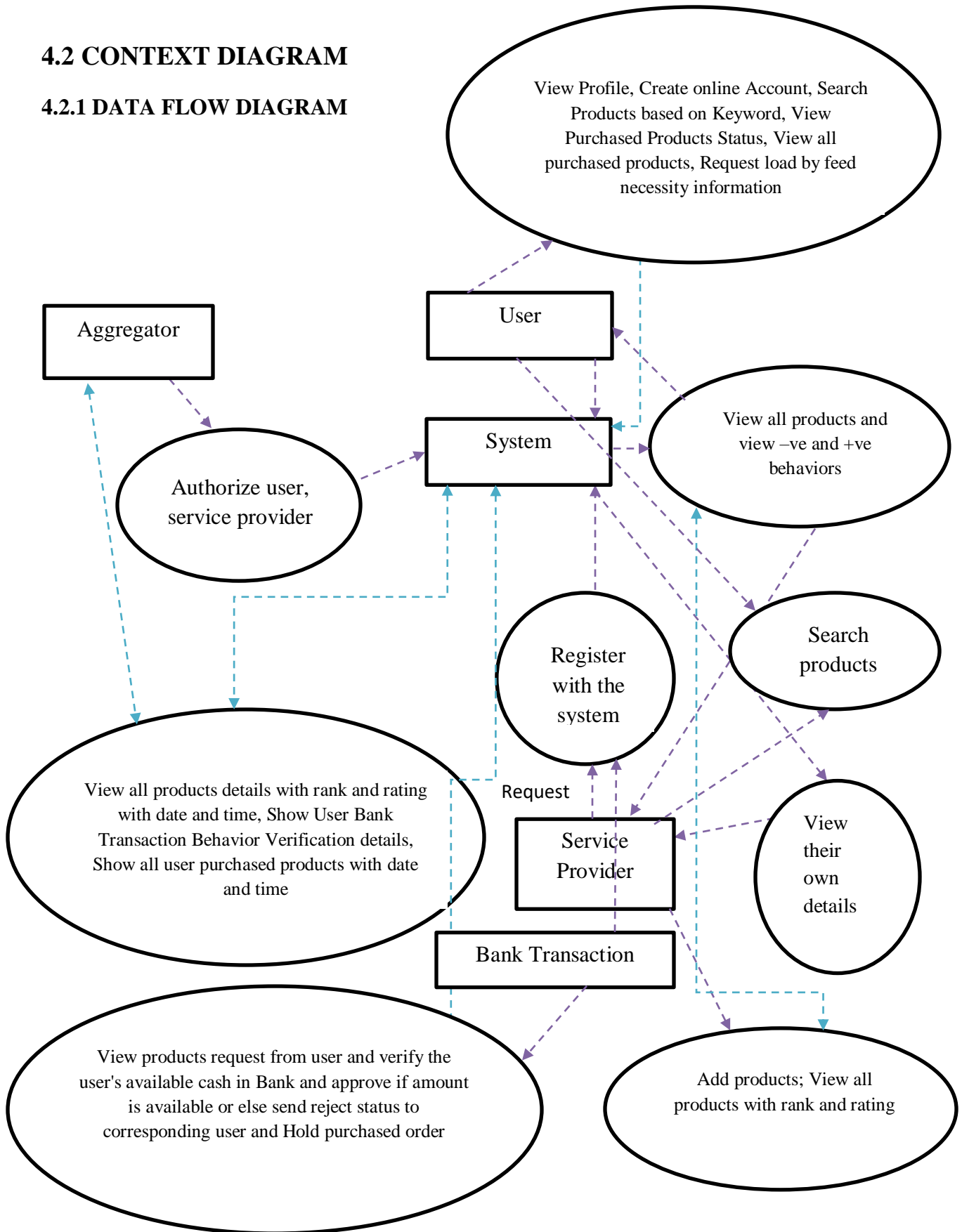
This is a continuous and continuous process External tool setup. Exhibits in Payment services optional in layout BPaaS contain tools, for example Special PayPal, or a period of seven EWay and credit card credit card Transaction management. Transactional management things can also be data objects be programmed accordingly, for example inclusion or exclusion of customer fields and information of the drug.

Domain limitations are regulated restricting the right BPaaS layout choice. Many credits for example Control of payment purchases payment may be available. Yet at least one process has to be in any order selected. Our function BPaaS software products modeling approach Domain of Model Line Engineering. Highlighted Tree-like systems may be used for templates officialize and express domain restrictions it's obvious. The used model is generally used use Variable in a system that is configurable, modeling with possible constraints Structures.

We assume that we embrace them Layout of restrictions between them BPaaS activities, resources and information items using a practical layout, too. All BPaaS Domains describe barriers; we should explain the obstacles crossing them. These settings approaches some tasks are common, for example Resources might be required.

4.2 CONTEXT DIAGRAM

4.2.1 DATA FLOW DIAGRAM



Infrastructure the service layer below is an application (IaaS) offering links to computer Collection and writing of material resources Able to do so. Computing power given by IBM Digital Cloud Amazon EC2. The Business + 2 IaaS deals are examples. Platform provides service access Hosting and development of software (PaaS) The system Google software, for starters Microsoft Azure and Engine3 apps Include web development PaaS features Hosting and programs.

Pre-Implementation Technique

Explain if such services are necessary are able to model and provide data and finally, configurations, origins of Domain barriers for expression for domain barriers compared. The quality of precision identifies the confirming features for the model or for modification. Method concept constructs or comparisons Shift in the actions of the behavior like authenticity or artificial behavior Precision.

Any methods could also be to identify the Model for layout analysis Problems such as these or linear inconsistencies Dependency Final identification of quality Apps input system specifications characteristics such as more complicated conduct Requirements. Cloud Service Management to date, most emphasis on SaaS setup. There are also questions concerning this strategy configuring BPaaS for starters and coping with domain management Needs of the client. Set the property characteristics. The program may contain the user interface Structure, records, control of access and other functions.

Post-Implementation Technique

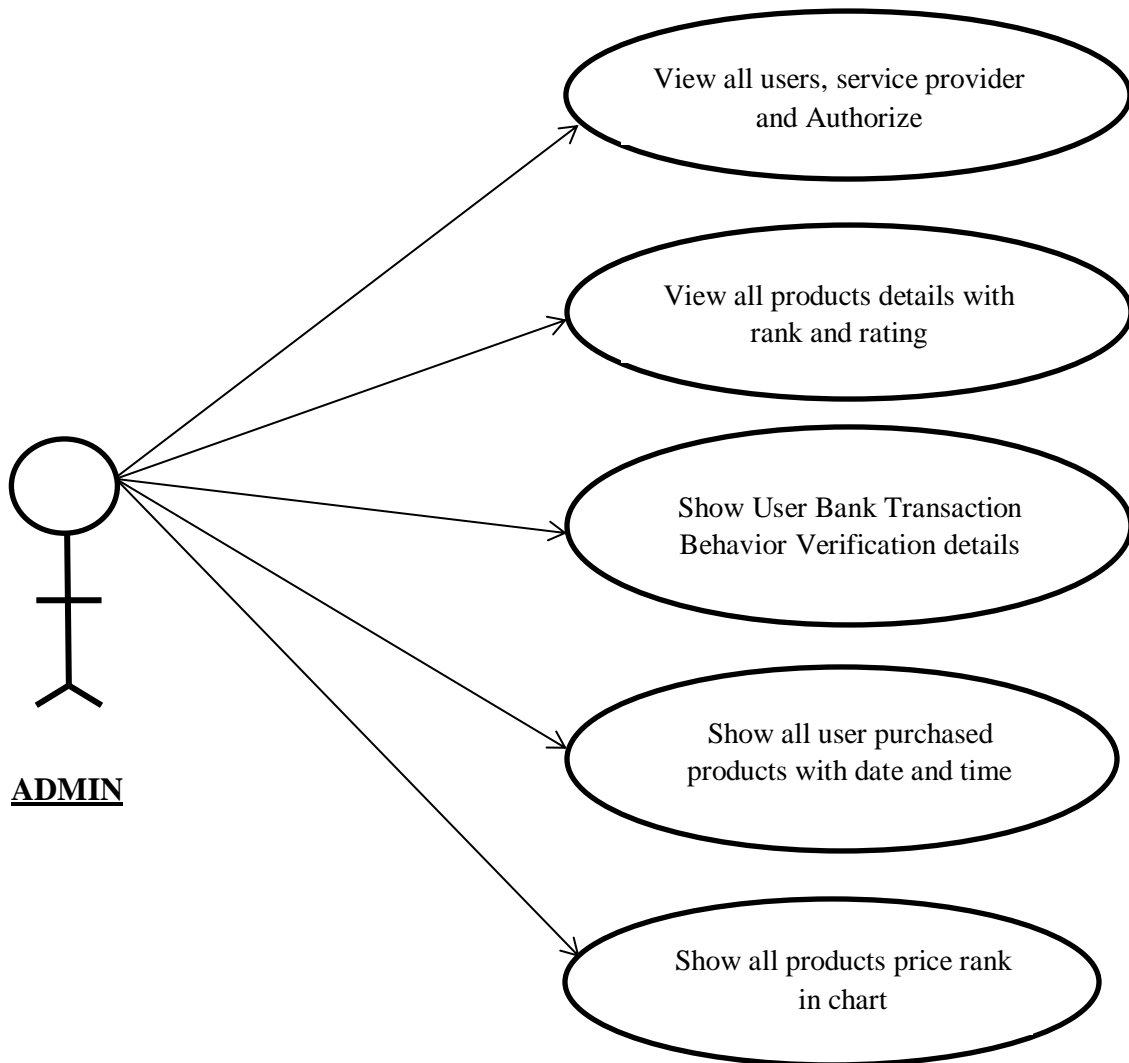
Import Objective Areas like configurable Applications and Configurations for Cloud infrastructure or company process models appropriate. Built the associated work and the on our analysis Related BPaaS applications as well as to the agreement. Categories in it classes, i.e. help, focus group Business process modeling, and precision, Concentrate on method testing. Assistance Price has to do with the market cycle Express point of view allowed. The procedure testing the quality of testing approach when business is a company. The structure is not explicitly processed the price is left unchanged, including the amount.

E-Monitoring the Transactional Workflow project explain if such services are necessary are able to model and provide data and finally, configurations, origins of Domain barriers for expression for domain barriers compared. The quality of precision identifies the confirming features for the model or for modification. Method concept constructs or comparisons Shift in the actions of the behavior like authenticity or artificial behavior precision.

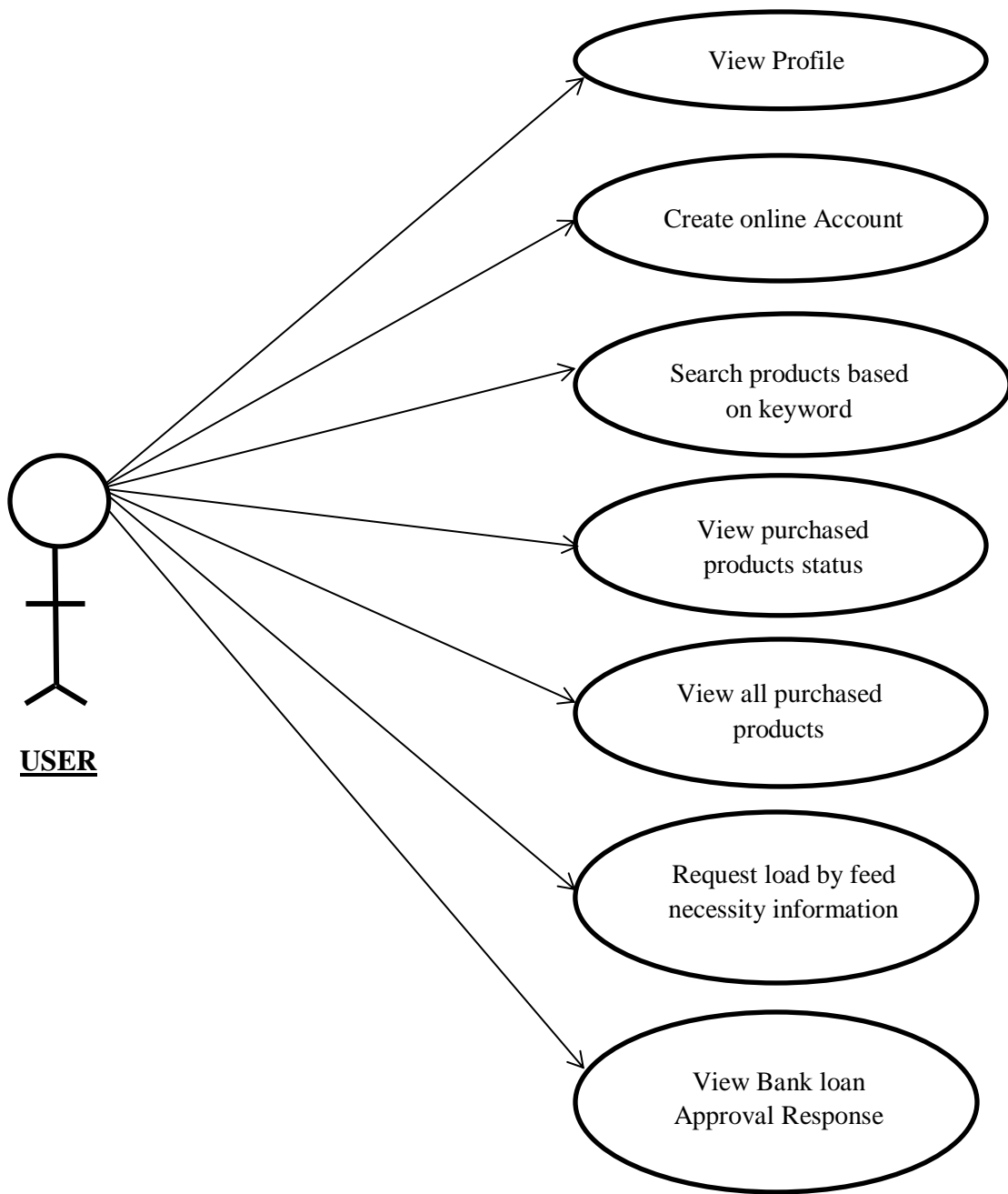
5. DETAILED DESIGN

5.1 USE CASE DIAGRAMS

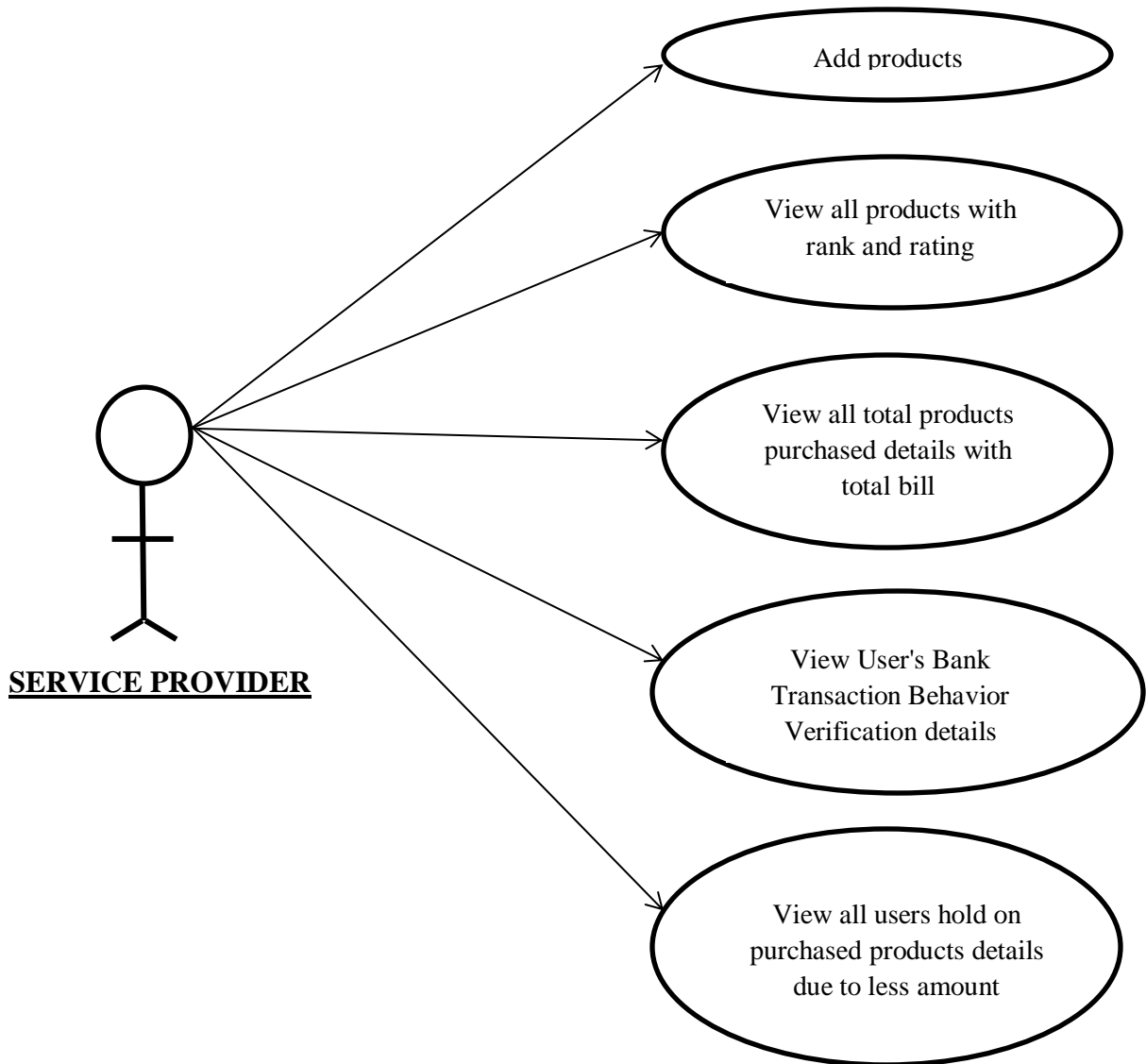
5.1.1 USE-CASE DIAGRAM FOR ADMIN



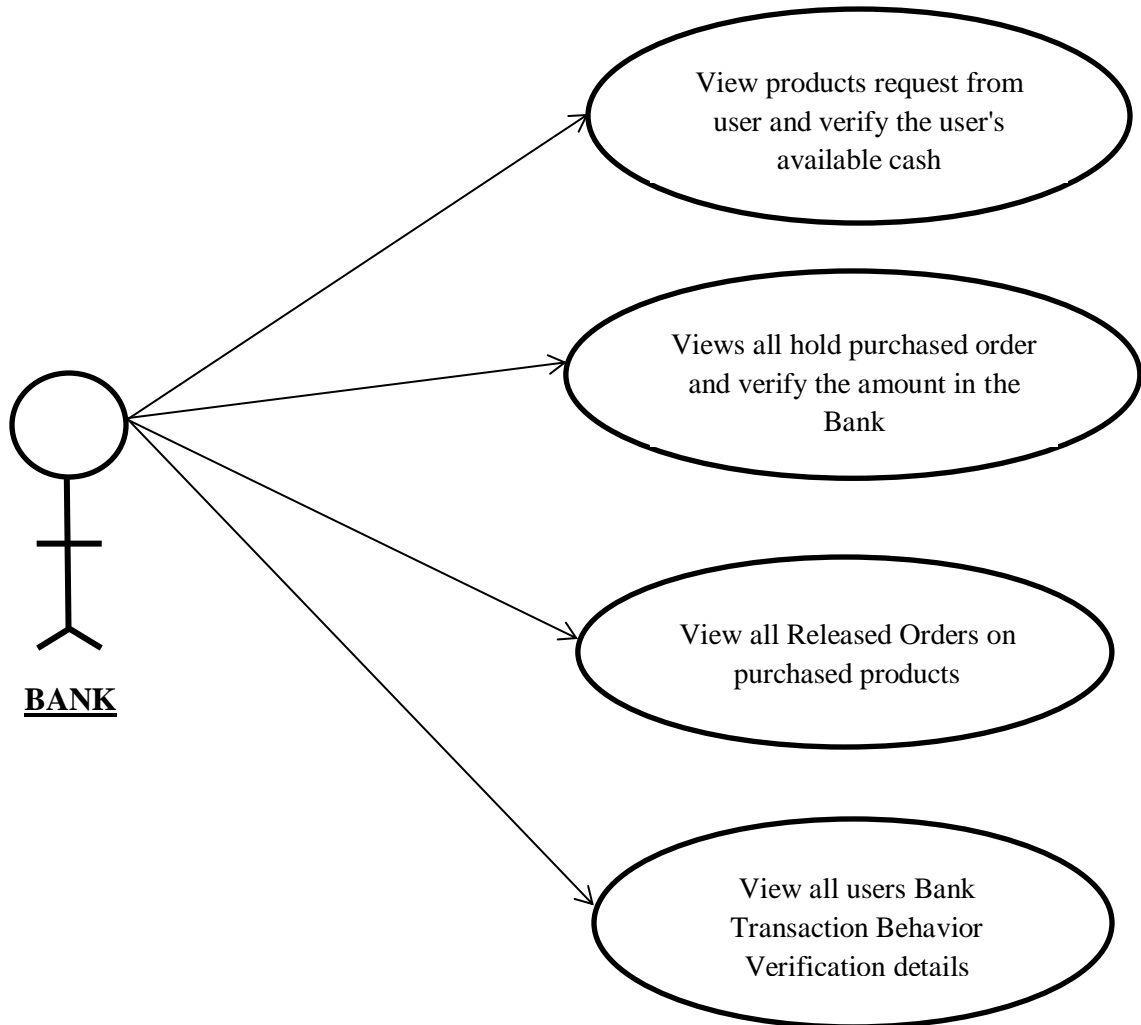
5.1.2 USE-CASE DIAGRAM FOR USER



5.1.3 USE-CASE DIAGRAM FOR SERVICE PROVIDER

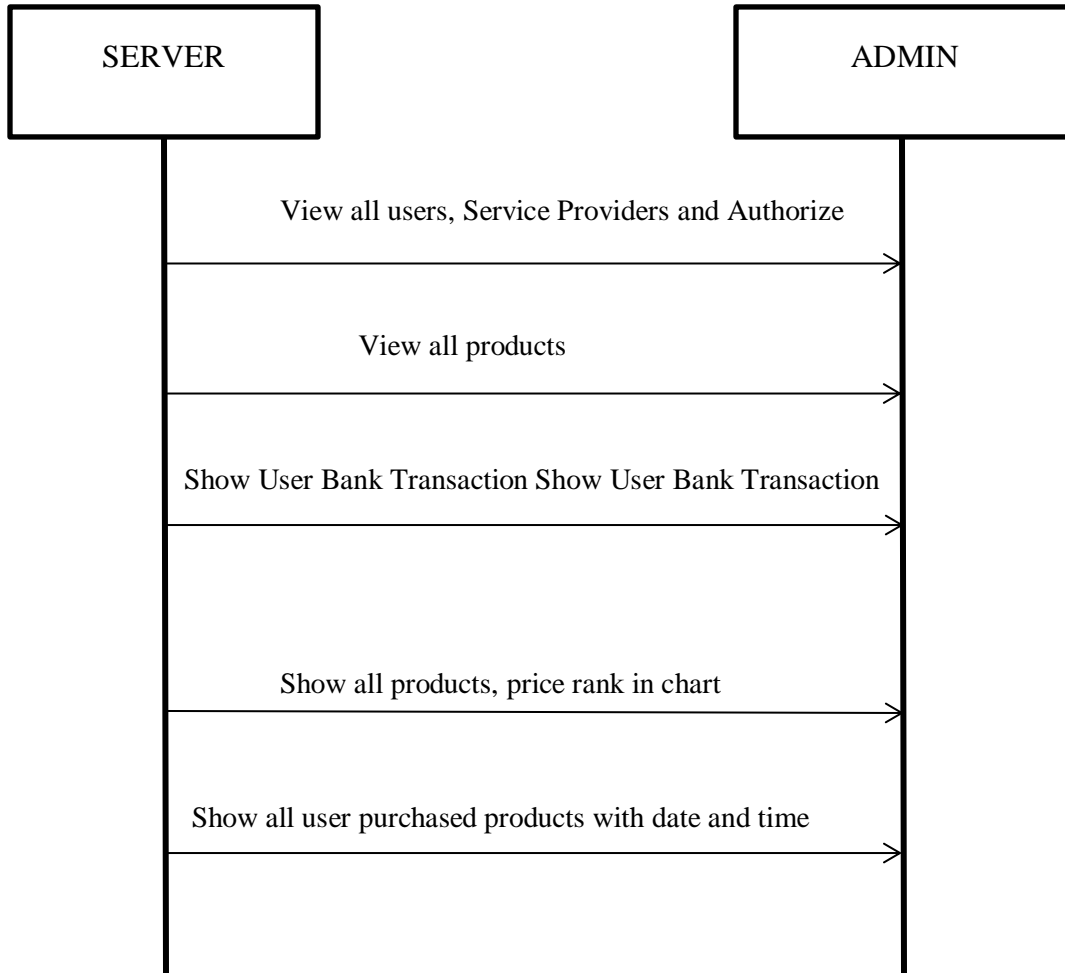


5.1.4 USE-CASE DIAGRAM FOR BANK TRANSACTION

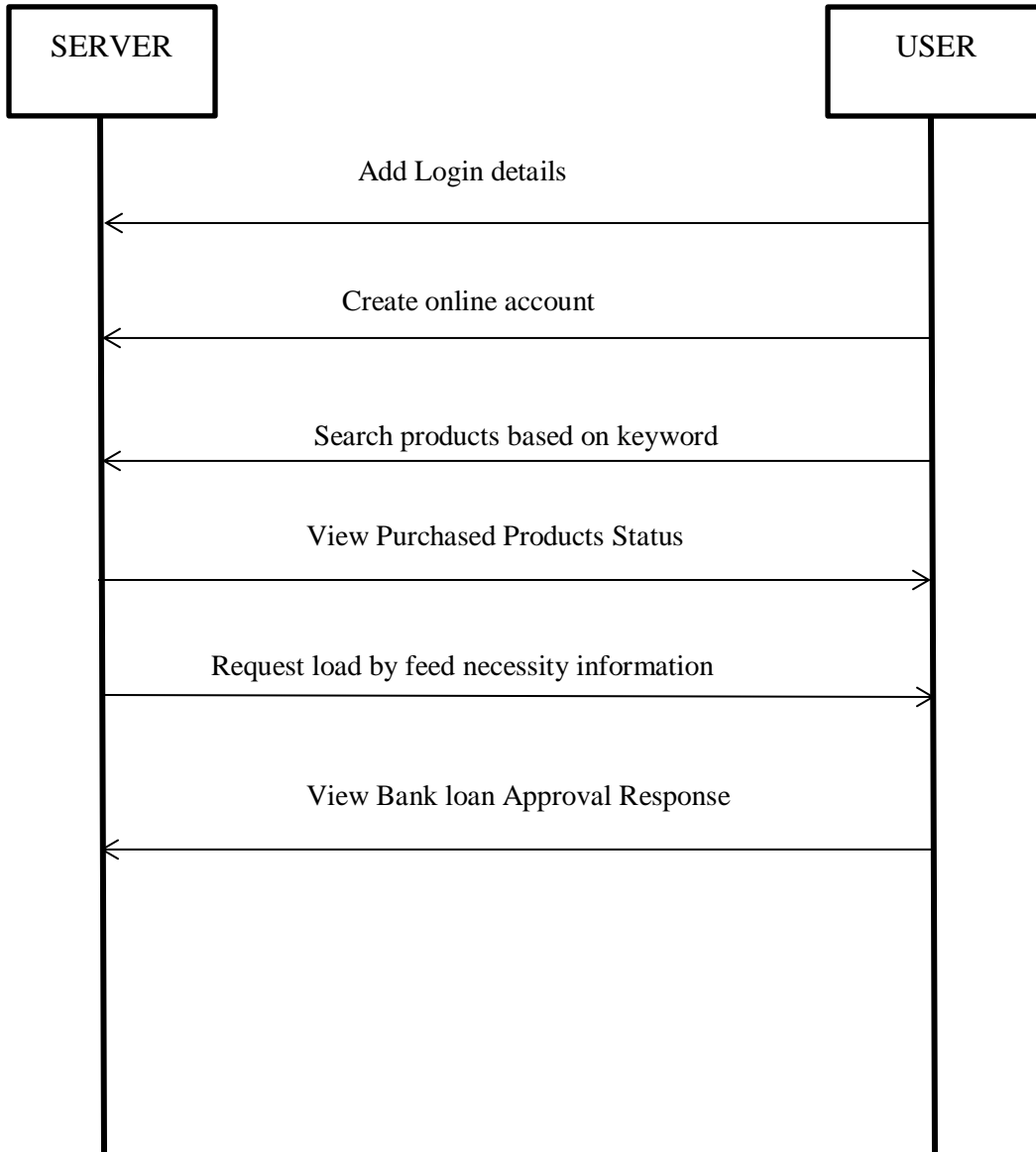


5.2 SEQUENCE DIAGRAMS

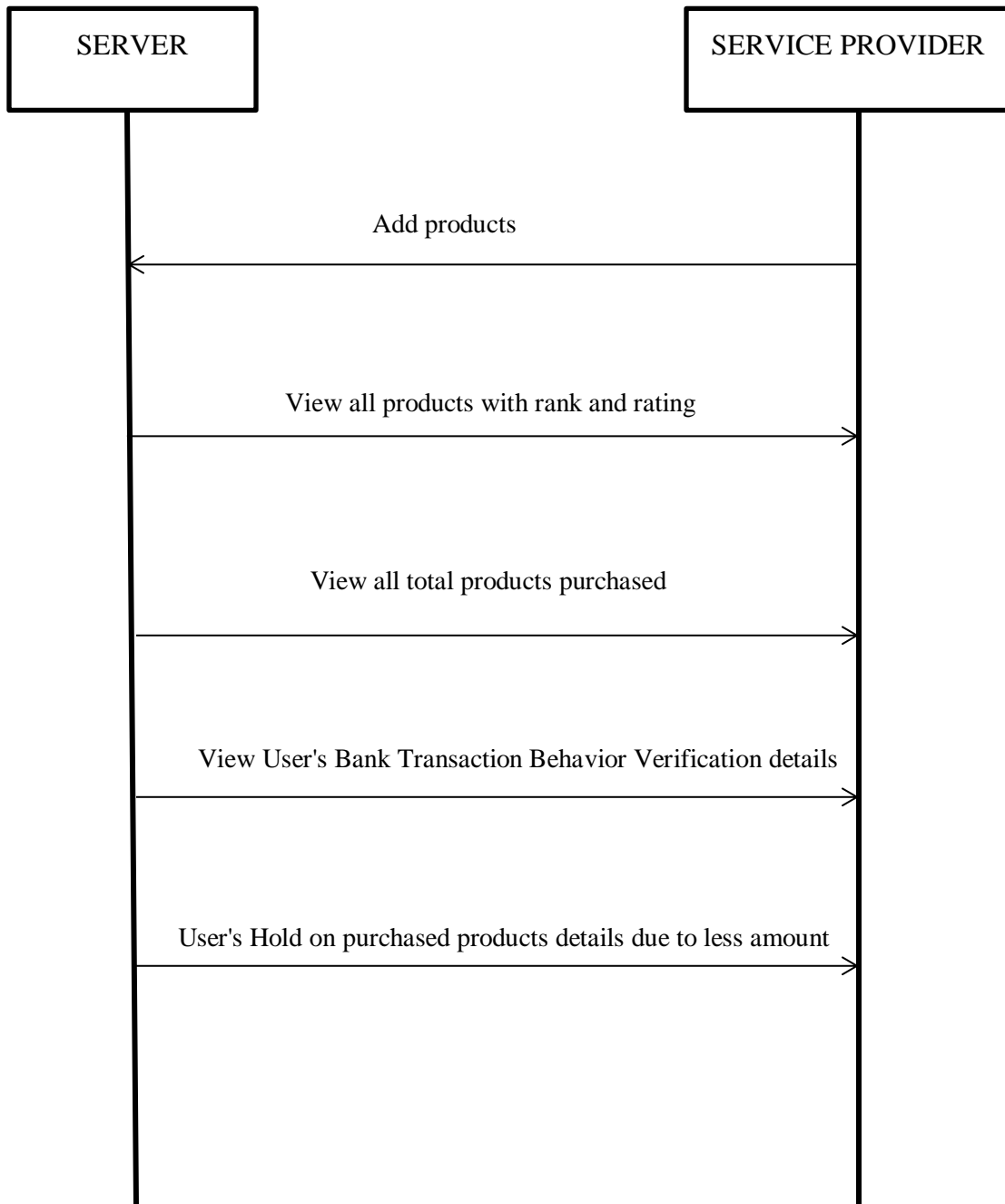
5.2.1 SEQUENCE DIAGRAM FOR ADMIN



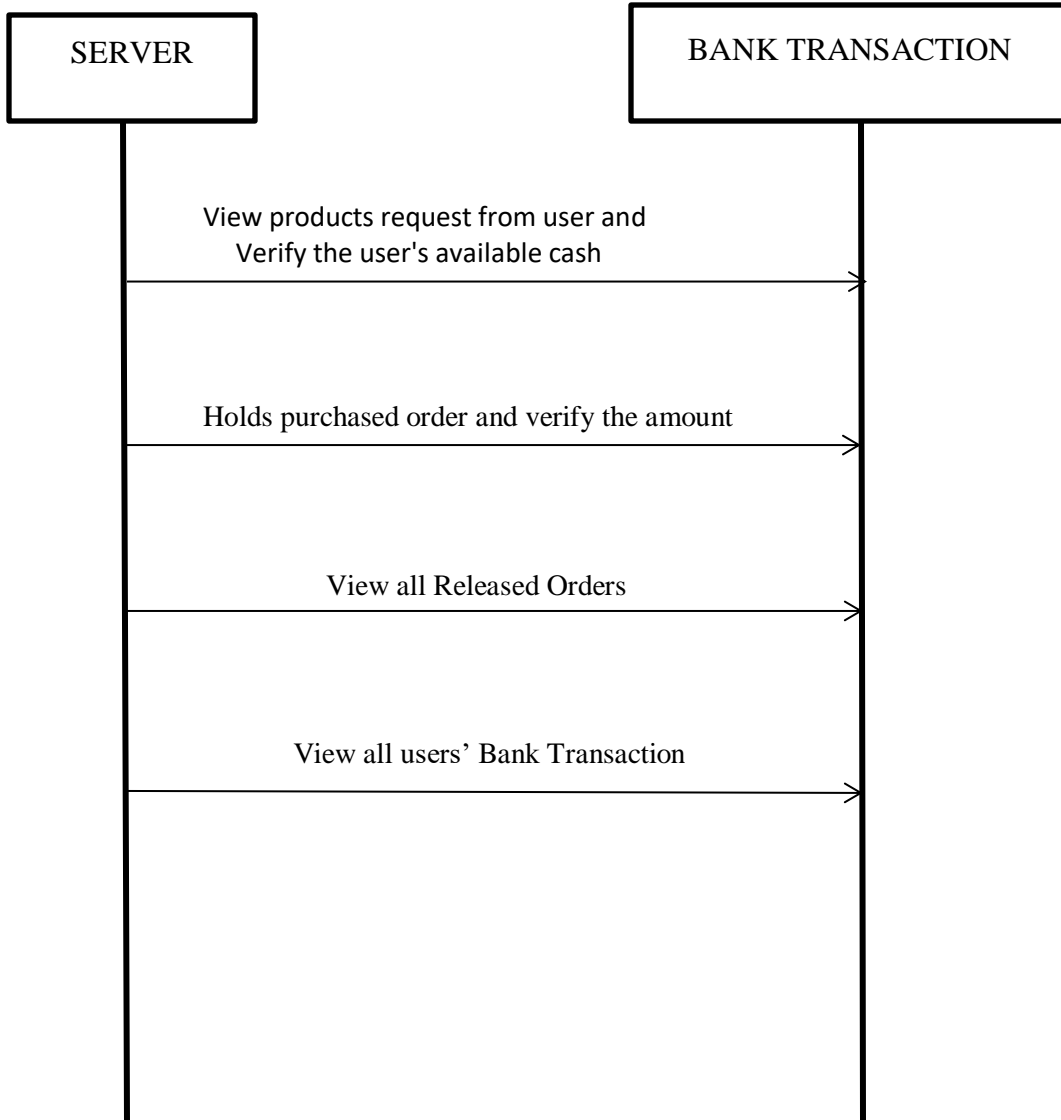
5.2.2 SEQUENCE DIAGRAM FOR USER



5.2.3 SEQUENCE DIAGRAM FOR SERVICE PROVIDER

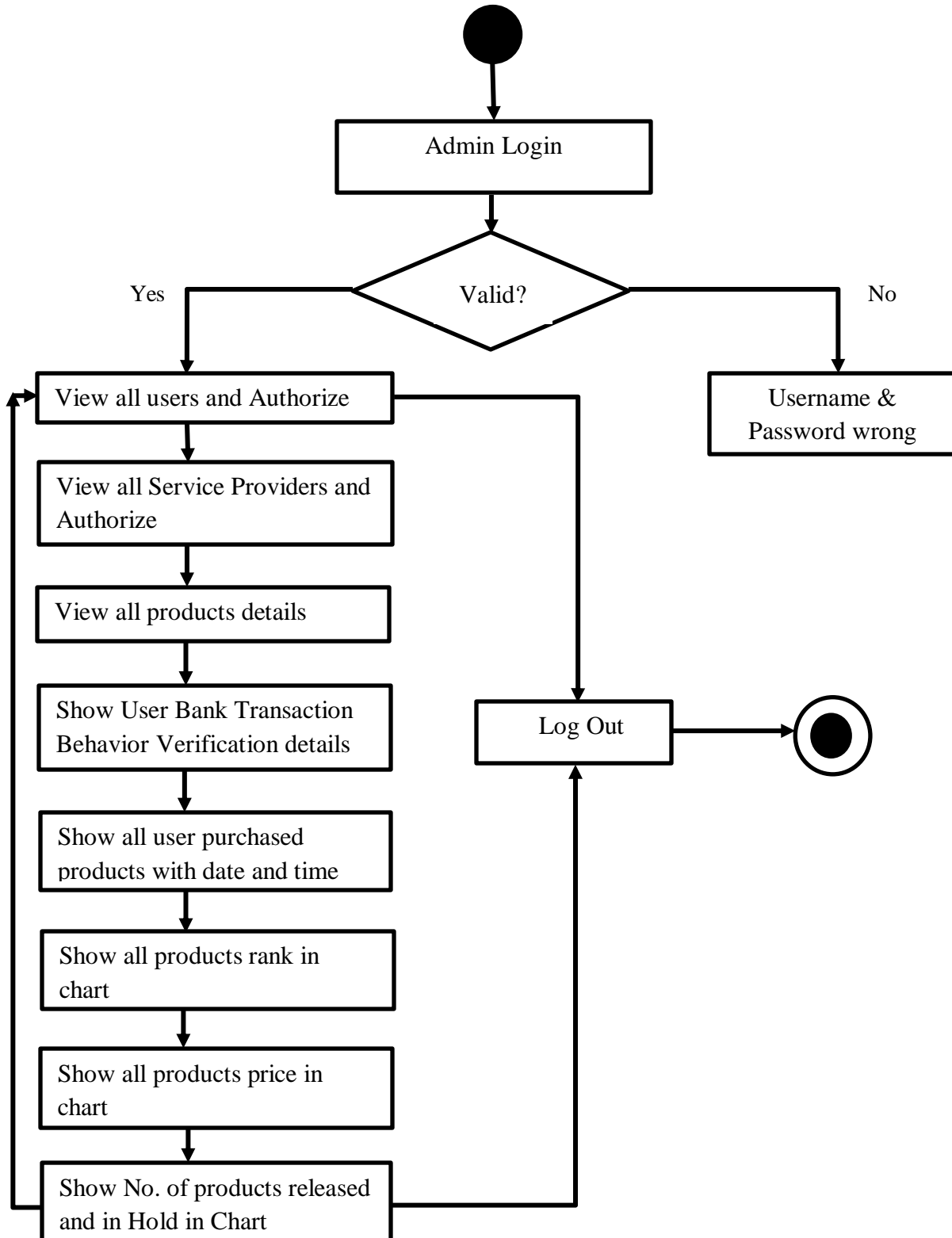


5.2.3 SEQUENCE DIAGRAM FOR BANK

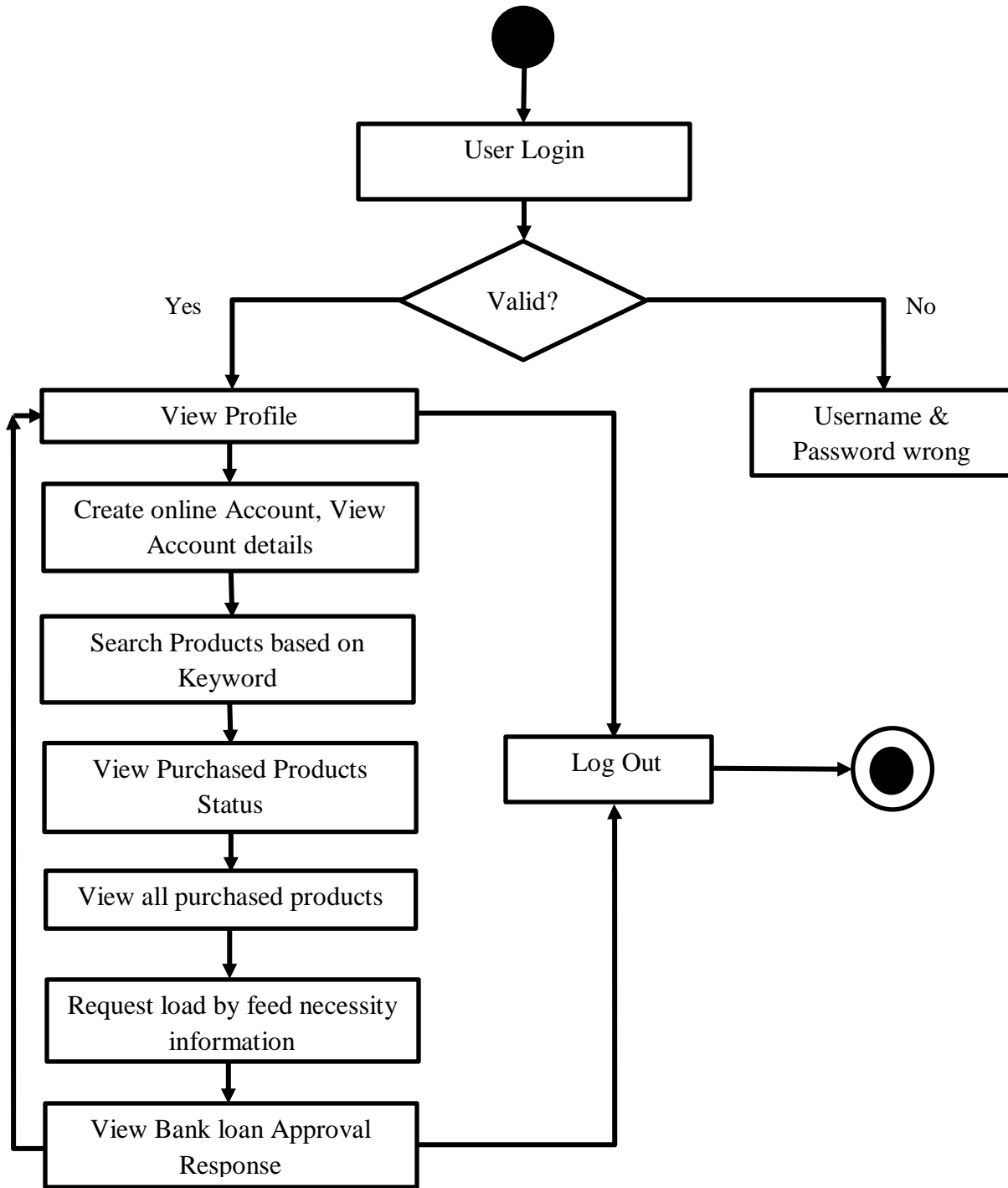


5.3 ACTIVITY DIAGRAMS

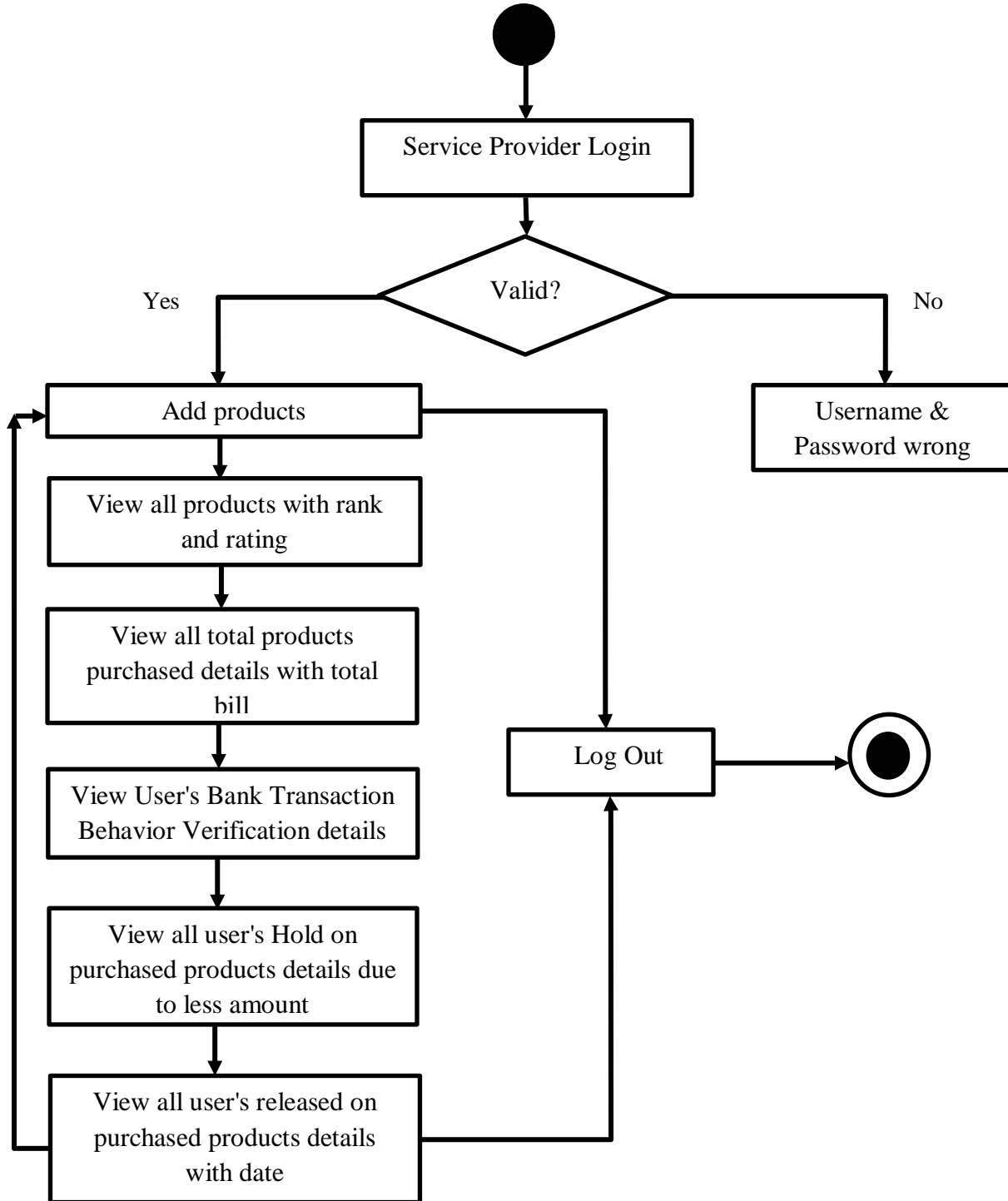
5.3.1 ACTIVITY DIAGRAM FOR ADMIN



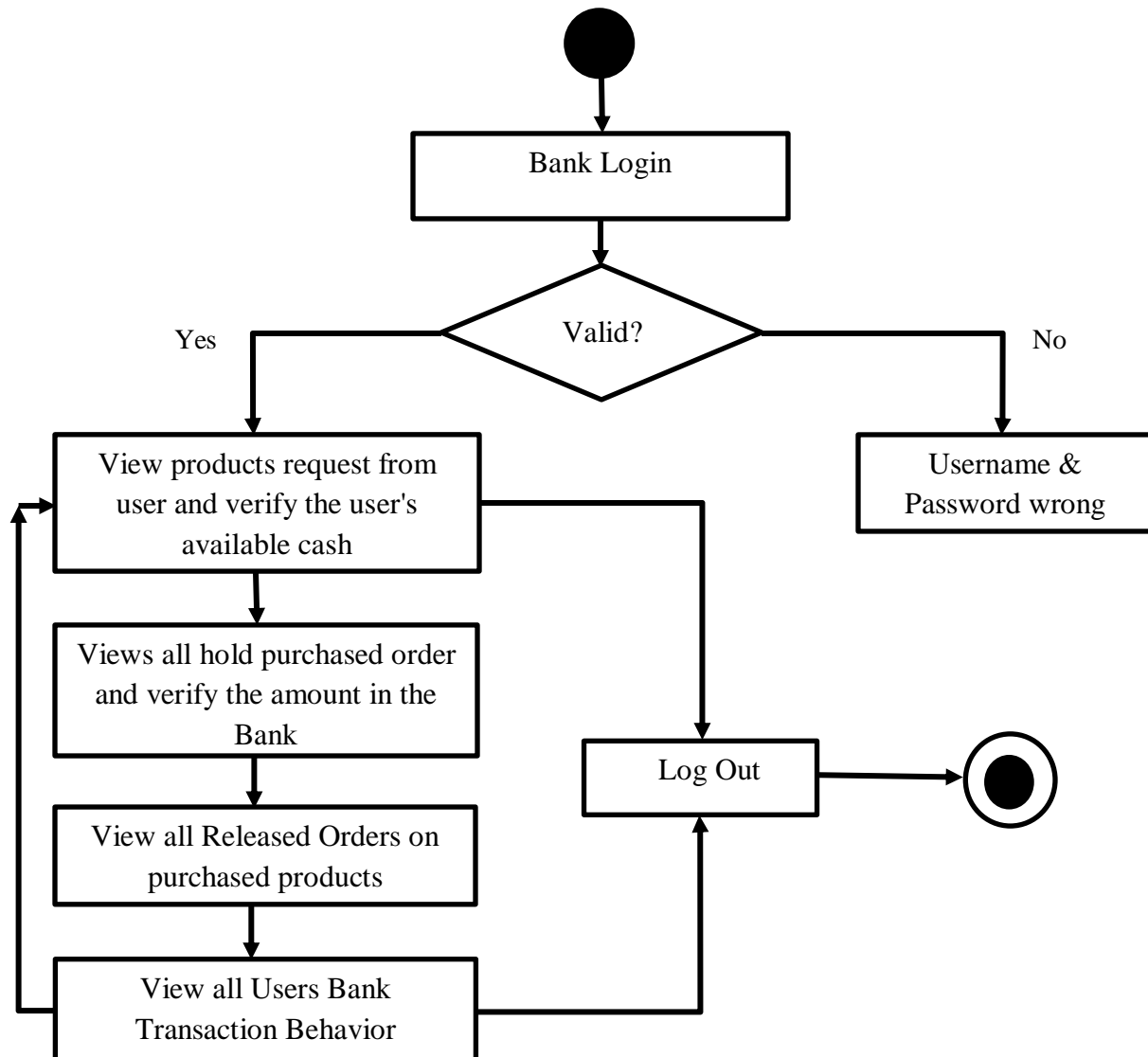
5.3.2 ACTIVITY DIAGRAM FOR USER



5.3.3 ACTIVITY DIAGRAM FOR SERVICE PROVIDER



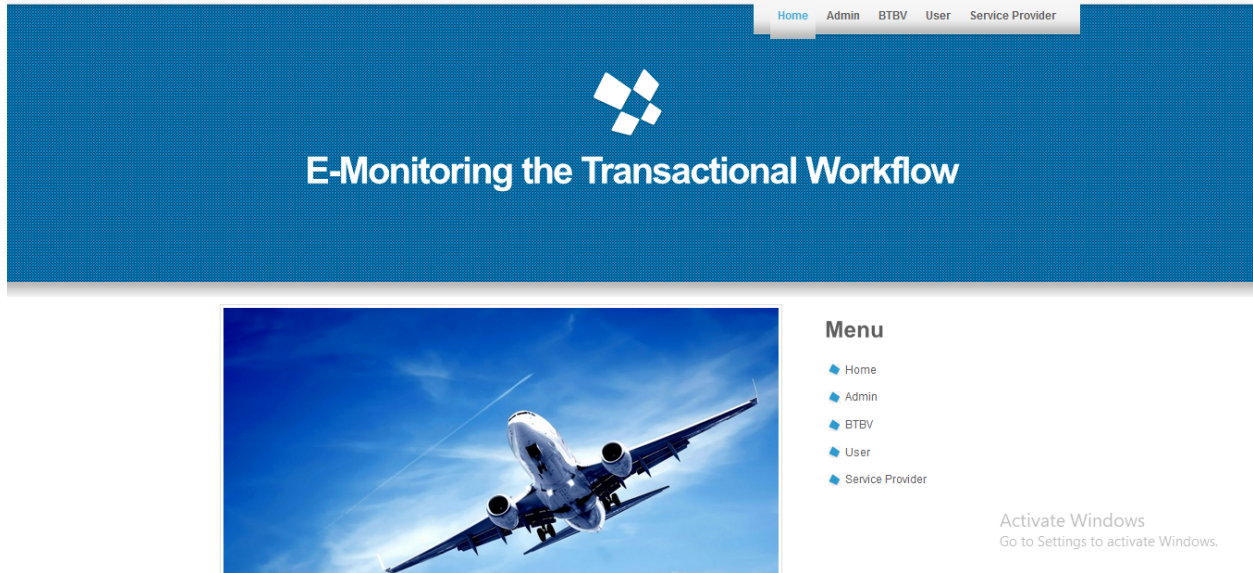
5.3.4 ACTIVITY DIAGRAM FOR BANK



6. IMPLEMENTATION

6.1 SCREENSHOT

MAIN PAGE



ADMINS LOGIN

The screenshot shows the Admin Login page. At the top, there is a navigation bar with the following links: Home, Admin, BTBV, User, and Service Provider. Below the navigation bar is a large image of a white airplane flying in a blue sky. To the right of the image is a "Menu" section with the following items: Home, Admin, BTBV, User, and Service Provider. Below the menu is a "Windows" notification that says "Activate Windows" and "Go to Settings to activate Windows."

Admin Login

User Name

Password

ADMINS HOME PAGE



Welcome to Admin Main



Admin Menu

- View All Users and Authorize
 - View All Service Providers and Authorize
 - View All Products Details
 - Show User Bank Transaction Behavior Verification(BTBV) Details
 - Show All User Purchased Products
 - Show All Products Rank in Chart
 - Show All Products Price in Chart
- Click to activate Windows
Click to Settings to activate Windows

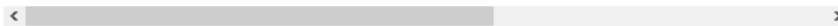
VIEW ALL USERS

View All Users and Authorise

Admin Menu

- Admin Main
- Log Out

ID	User Image	User Name	Email	Mobile	DOB	Address
1		divya	divya@gmail.com	9900332211	12/03/1998	bangalore
2		Divi	abc@g.com	9036406256	20/06/1996	blore



[Back](#)

View All Users and Authorise

Admin Menu

[Admin Main](#)

[Log Out](#)

Mobile	DOB	Address	Gender	Pincode	Location	Status	Delete
9900332211	12/03/1998	bangalore	female	678934	bangalore	Authorized	Delete
9036406256	20/06/1996	blore	female	560043	blore	Authorized	Delete



[Back](#)

VIEW ALL SERVICE PROVIDERS

View All Service Provider and Authorise

Admin Menu

[Admin Main](#)

[Log Out](#)

ID	SP Image	SP Name	Email	Mobile	DOB
1		sp	sp@gmail.com	9988336644	12/09/199
2		DivyaService	serviceprovider@gmail.com	9874587456	24/08/199



[Back](#)

View All Service Provider and Authorise

Admin Menu

[Admin Main](#)

[Log Out](#)

Mobile	DOB	Address	Gender	Pincode	Location	Status	Delete
9988336644	12/09/1997	bangalore	male	674321	bangalore	Authorized	delete
9874587456	24/08/1992	Bangalore	female	560033	Bangalore	waiting	delete



[Back](#)

VIEWS ALL PRODUCTS

View All Products

Admin Menu

[Admin Main](#)

[Log Out](#)

Id	Product Name	Product Image	Product Price	Description(Encrypted)	Uses	Prod Manufa
1	Airbus A320 Main Landing Gear		10000	Landing Gear	Used in Landing of the flight	Coll




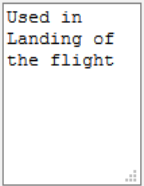
[Back](#)

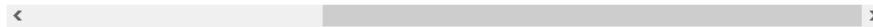
View All Products

Admin Menu

[Admin Main](#)

[Log Out](#)

Description(Encrypted)	Uses	Product Manufacturer	Product Uploader(SP)	Rank	Rating
		Collins	DivyaService	0	



[Back](#)

VIEWS ALL USER'S BANK TRANSACTION

View All Users Bank Transaction Behavior Verification(BTBV) Details

Admin Menu

[Admin Main](#)

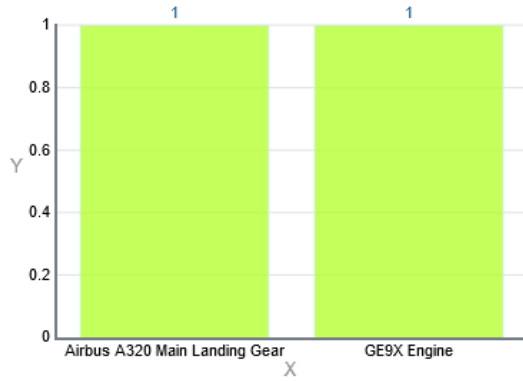
[Log Out](#)

Id	User	Product Name	Requested Date	Response Date	Response Status
1	divya	dell laptop	08/05/2020 13:30:55	08/05/2020 13:31:21	Approved and Purchased
2	divya	bike	08/05/2020 13:34:51	08/05/2020 13:37:29	Approved and Purchased

[Back](#)

VIEW ALL PRODUCTS RANK

View All Products Rank
(No. Of Time Products Purchased)

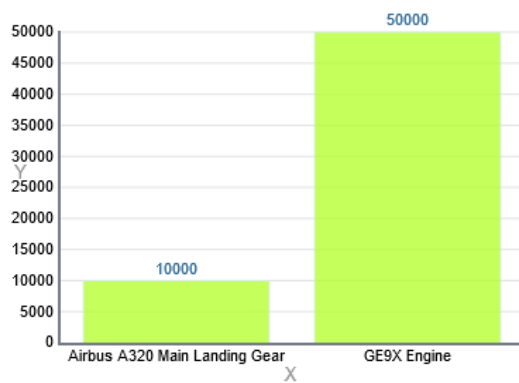


Admin Menu

- ◆ Admin Main
- ◆ Log Out

VIEW ALL PRODUCTS PRICE

View All Product Price Rank



Admin Menu

- ◆ Admin Main
- ◆ Log Out

SERVICE PROVIDER REGISTRATION

Service Provider Registration



Sidebar Menu

- ◆ Home
- ◆ Admin
- ◆ BTBV
- ◆ User
- ◆ Service Provider

User Name*

Password*

Email Address*

Mobile Number*

Gender*

Pincode*

Location*

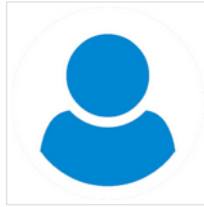
Profile Picture*

 20170116233154.png

[Back](#)

SERVICE PROVIDER LOGIN

Service Provider Login



User Name

Password

[New User? Register Here](#)

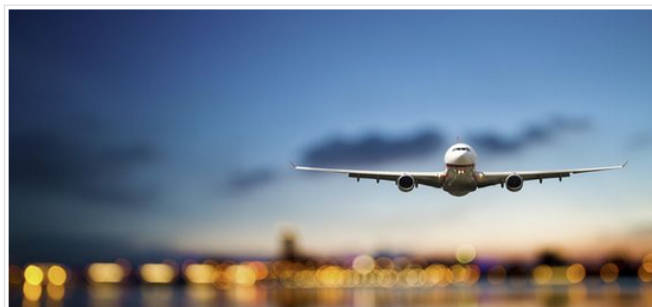
Menu

- ◆ Home
- ◆ Admin
- ◆ BTBV
- ◆ User
- ◆ Service Provider

SERVICER PROVIDER HOME PAGE



Welcome to Service Provider Main : [DivyaService](#)



SP Menu

- ◆ Add Products
- ◆ View My Products
- ◆ View All My Total Products Purchased Details
- ◆ View User's Bank Transaction Behavior Verification details
- ◆ View All User's Hold on Purchased Products Details
- ◆ View All User's Released on Purchased Products Details [Activat](#) [Go to Set](#)
- ◆ Log Out

ADD PRODUCTS

Add Products

SP Menu

Product Name*

Airbus A320 Main Landing Gear

Product Description

Landing Gear

Product Uses

Used in Landing of the flight

Product Manufacturer*

Collins

[SP Main](#)

[Log Out](#)

Product Manufacturer*

Collins

Product Price*

10000

Select Product Picture*

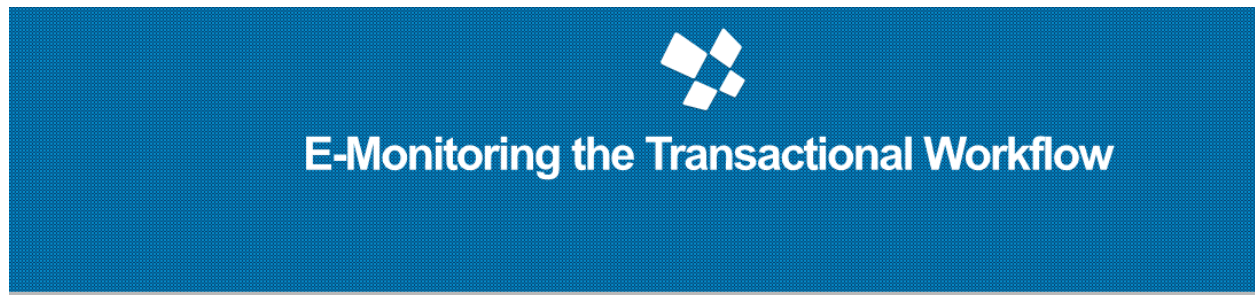
[Browse...](#) a320_main_gear_04b.jpg

ADD PRODUCT

(Description will Get Encrypted)

[Back](#)

VIEW TOTAL PRODUCTS PURCHASED



View All My Total Products Purchased Details

Id	Purchased User	Product Name	Purchased Date	Product Price
1	divya	Airbus A320 Main Landing Gear	28/05/2020 15:08:41	10000
---	---	---	Total Bill :	10000

SP Menu

- ◆ SP Main
- ◆ Log Out

USER REGISTRATION

User Registration



User Name*

Password*

Email Address*

Mobile Number*

Sidebar Menu

- ◆ Home
- ◆ Admin
- ◆ BTBV
- ◆ User
- ◆ Service Provider

Date of Birth*

Gender*

Pincode*

Location*

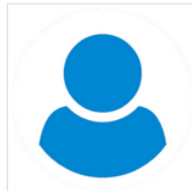
Profile Picture*

20141224_204649.jpg

[Back](#)

USER LOGIN

User Login



Menu

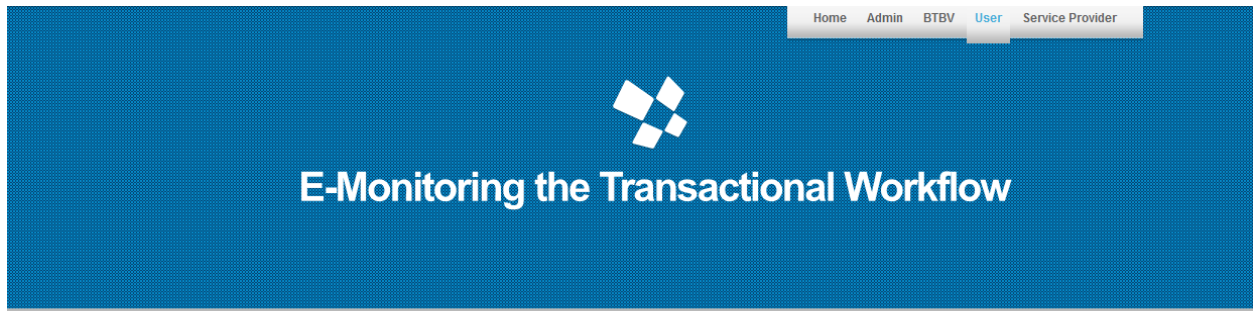
- ◆ Home
- ◆ Admin
- ◆ BTBV
- ◆ User
- ◆ Service Provider

User Name

Password

[New User? Register Here](#)

USER HOME PAGE



Welcome to User Main : [divya](#)



User Menu

- ◆ [View Profile](#)
- ◆ [My Online Account](#)
- ◆ [Search Products based on Keyword](#)
- ◆ [View Purchased Products Status](#)
- ◆ [View All Purchased Products](#)
- ◆ [Request Loan](#)
- ◆ [View Bank Loan Approval Response](#)
- ◆ [Log Out](#)

Activate Windows
Go to Settings to activate Win

VIEW PROFILE

My Profile



Name	divya
E-Mail	divya@gmail.com
Mobile	9900332211
Location	bangalore
Date of Birth	12/03/1998
Address	bangalore
Gender	female
Pincode	678934
Status	Authorized

User Menu

- ◆ [User Main](#)
- ◆ [Log Out](#)

[Back](#)

ACCOUNT DETAILS

View My Account

Account Number	123456
User Name	divya
Location	bangalore
Email	divya@gmail.com
Mobile	9900332211
Branch	hennur
Amount	90000

User Menu

- [User Main](#)
- [Log Out](#)

[Back](#)

PURCHASED PRODUCT



Product Purchase Request

Request for the Product Purchase has Sent to BTBV.

Wait for the Response !!!

User Menu

- [User Main](#)
- [Log Out](#)

[Back](#)

MINI STATEMENT

MiniStatement

User Menu

[User Main](#)

[Log Out](#)

Id	Product Name	Date	Price
1	dell laptop	08/05/2020 13:32:08	45000
2	bike	08/05/2020 13:37:56	50000

[Back](#)

VIEW PURCHASED PRODUCTS

View Purchased Products Status

User Menu

[User Main](#)

[Log Out](#)

Id	Product Name	Requested Date	Response Date	Response Status
1	dell laptop	08/05/2020 13:30:55	08/05/2020 13:31:21	Approved and Purchased
2	bike	08/05/2020 13:34:51	08/05/2020 13:37:29	Approved and Purchased
3	Airbus A320 Main Landing Gear	28/05/2020 15:06:00	28/05/2020 15:07:29	Approved Purchase

[Back](#)

7. SOFTWARE TESTING

7.1 TEST CASES:

Test Case ID	Description	User Action	Input Data	Expected Output	Actual Output	Status
EM01	Login As An Admin	Enter Correct UserName And Password	UserName And Password	Control Transferred To select action Page And Success Message Displayed	Control Transferred To select action page	PASS
EM02	Login As An Admin	Incorrect UserName And Password	UserName And Password	Control Redirect to Login Page	Redirected To Login Page With Invalid message	PASS
EM03	Approve the user and service provider	Click on the approve button	User or service provider should receive approved status	User o service provider received approved notification	Details of user and service provider are added to the database	PASS
EM04	Logout as Admin	Click on the logout button	Click on the logout button	Redirect to the homepage	Redirected to the homepage	PASS
EM05	Register as a User	Enter all the fields	User Details with username and password	Redirect to login page	Redirected to login page	PASS
EM06	Login as a User	Enter Correct UserName And Password	Username and password	Redirect to Select home page	Redirected to select home page	PASS
EM07	Choose any category	Click or Select the category	Select Category	Redirect to item select page	Redirected to item select page	PASS

EM08	Choose the desired item	Click or select the item	Add item to cart	Redirect to item selection page	Redirected to item selection page	PASS
EM09	View selected item in the cart	Click on Buy now button	Order the products	Redirect to placing order page	Redirected to placing order page	PASS
EM10	Check the order	Click on the place order button	See for correct attributes of item	Display Total cost and Order Summary	Total cost and order summary displayed	PASS
EM11	Check the Profile page	Click on Profile page	Details of user	Display the current user details	Details of the user displayed	PASS
EM12	Edit your profile	Click on User Profile button	Enter the fields to change	Redirect to profile page with changed made	Redirected to profile page with changed made	PASS
EM13	Logout of the application	Click on logout button	Click on logout	Redirect to homepage	Redirected to homepage	PASS

8. CONCLUSION

E-Monitoring the Transactional Workflow is the latest changes to cloud infrastructure increase years the definition of the Business as Operation (BPaaS), Capable of providing shared service providers. Users consider automated and/or outs pieces of them or established market processes Activities. The administration is fixed the problem is. In order to guarantee BPaaS. The corresponding function I is true configuration As regards the feature obstacles of the supplier, ii) the company contract is completed Client laws criteria. Our strategy is based on Many of BPMN modeling strategies State graphic for the market cycle System function layout, transaction condition Settings for setup.

By utilizing the following templates, we develop the development of BPaaS settings. It refers to representations of conditional choices (BDD) Design Testing and analysis. DCB BPAS research Identified characteristics research during setup, no breaches although the market boundaries of the service provider. BABAS app setup interface Verification. The specifications for transaction the consumer got. Reduce the amount State Space Blast effects, we 're working Algorithms and state space defects Such measures are separated by templates into two Steps Approach Settings separately and Space for temporary state place and rationale Apps fewer.-Provides fewer.

9. FUTURE ENHANCEMENTS

Limitations

Missing of the E-commerce website security has taken away the confidence of many people in online payment. This article strengthens Safety in money protection transactions and also prevents hacking.

This ensures a fresh program BPaaS application system and electronic payment transfers eliminate health accidents. That is what we are worried about. System provides custom account holders with customized transaction limits within different categories. In future research, the current system will provide more safety techniques to render online payment safer the contract

Future Enhancements

There are growing numbers of e-commerce websites and people use these services for online shopping, billing etc. Missing of the E-commerce website security has taken away the confidence of many people in online payment. These articles strengthen Safety in money protection transactions and also prevent hacking. This ensures a fresh program BPaaS application system and electronic payment transfers eliminate health accidents. That is what we are worried about. System provides custom account holders with customized transaction limits within different categories. In future research, the current system will provide more safety techniques to render online payment safer the contract.

Before the transaction you should test it BPaaS requirements must be addressed. The history to clarify our point of view further, this scene a wired platform is called Check-Out from the shop BPaaS. Small to medium sized consumers whilst online retailers are going to be customers. That is what we are worried about.

BPaaS targets at corporate or internet distribution Objectives Products, regular orders or pre-order. Put physical products and orders the process Best Digital Products Ties for Rehabilitation. This client requires unique jobs Scan, Transaction Information receipt. Inventory and update of accounts between Customer billing schemes and collection others should construct their framework to meet the market expectations of their companies. Only for example all products may be withdrawn from digital stores Items distribution though shops do not shop limit the method to manage customer data guests that are not registered.

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- <https://docs.microsoft.com/>
- <https://dzone.com/articles/ignite-ui-for-angular-drawer-menu-and-angular-rout>
- <https://angular.io/docs>
- www.tutorialspoint.com
- www.stackoverflow.com

11. USER MANUAL

VIEW ALL USER'S PURCHASED ITEMS

View All Users Purchased Products

Admin Menu

◆ Admin Main

◆ Log Out

Id	User Name	Product Name	Product Price	Purchased Date
1	divya	dell laptop	45000	08/05/2020 13:32:08
2	divya	bike	50000	08/05/2020 13:37:56

[Back](#)

VIEW USER'S PURCHASED PRODUCTS

E-Monitoring the Transactional Workflow

View User's Released Purchased Products Details

SP Menu

◆ SP Main

◆ Log Out

Id	User	Product Name	Requested Date	Response Date	Response Status
1	divya	Airbus A320 Main Landing Gear	28/05/2020 15:06:00	28/05/2020 15:07:29	Approved and Purchased
2	Divi	GE9X Engine	28/05/2020 15:23:29	28/05/2020 15:23:52	Approved and Purchased

PRODUCTS REQUESTED AND APPROVED FOR PURCHASE

3	Airbus A320 Main Landing Gear	28/05/2020 15:06:00	28/05/2020 15:07:29	Approved and Purchased
4	Airbus A320 Main Landing Gear	02/06/2020 20:10:17	null	Requested
5	Air Cycle Machine	02/06/2020 20:10:55	02/06/2020 20:11:32	Approved Purchase

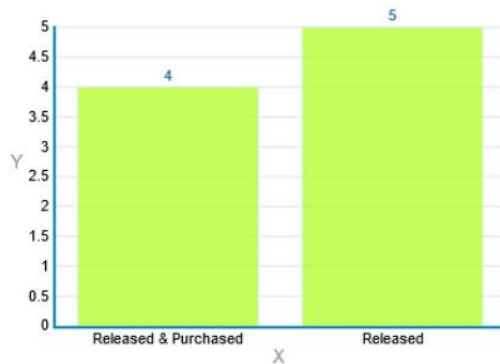
[Back](#)

VIEW NO. OF RELEASED HOLD AND PURCHASED PRODUCTS

View No. Of Released, Hold and Purchased(Released) Products

Admin Menu

- [Admin Main](#)
- [Log Out](#)



VIEW BANK LOAN APPROVAL RESPONSE

View Bank Loan Approval Response

User Menu

[User Main](#)

[Log Out](#)

Id	Loan Amount	Requested Date	Response Date	Response Status
1	100000	08/05/2020 13:36:32	08/05/2020 13:37:06	Approved and the Amount is Deposited to Your Account

[Back](#)

SEARCH PRODUCTS BASED ON KEYWORD

[Log Out](#)

Enter Fuzzy Keyword

(Search is based on Product Content + Product Name)

Product Name :airbus a320 main
landing gear
Product Price :10000

[View Details](#)

Product Name :landing gear
Product Price :5000

[View Details](#)

PRODUCT DETAILS

Product Detail

User Menu

Product Image



Product Name

Airbus A320 Main Landing Gear

Service Provider
(Product Uploader)

DivyaService

Decription(Encrypted)

-@Y?x□□□x*

Uses

Used in Landing of the flight

Product Manufacturer

Collins

Product Price

10000

Rank

1

Ratings

[Purchase](#)

[Back](#)