A project report on

SOA Protocol implementation in Search Engine Optimizing

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

MASTER OF COMPUTER APPLICATIONS

Of

Visvesvaraya Technological University
Belgaum, Karnataka

By

SOWMYA T
1CY18MCA63

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

Internal Guide

Mrs. Varsha
Asst Professor,
MCA Department,
CMR Institute of Technology
Bengaluru

External Guide

Mr. Abinav M
Project Manager,
EBiX.BiZ,
Bengaluru

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

CMR INSTITUTE OF TECHNOLOGY
Department of Master of Computer Applications
Bangalore -560 037

CERTIFICATE

This is to certify that the project work entitled

SOA Protocol implementation in Search Engine Optimizing

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*

Sowmya T
1CY18MCA63
during the academic year 2019-2020

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs.Varsha	Mrs.Gomathi.T	Dr. Sanjay Jain,
Asst.Professor, MCA	HOD, MCA	Principal,CMRIT

External Viva

Name of the Examiners — Signature with date

1.
2.

DECLARATION

I am **SOWMYA T** , student of 6th Semester **MCA, CMR Institute of Technology**, bearing the **USN 1CY18MCA63** , hereby declare that the project work entitled "**SOA Protocol implementation in Search Engine Optimizing**" been submitted to **EBiX.BiZ**, Bengaluru is a record of an original work done by me under the guidance of Internal Guide **Mrs .Varsha ,Asst. Professor, Dept. of Master of Computer Applications , CMRIT** and this project work is submitted in the partial 00fulfillment 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 SOWMYA T
Date: 1CY18MCA63

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. Abinav M, Project Manager EBiX.BiZ Bangalore, and to my Internal Project guide Mrs. .Varsha ,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. Abinav M, Team lead, EBiX.BiZ 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.

SOWMYA T

(1CY18MCA63)

EBiX.BiZ

10/06/2020

Bangalore

CERTIFICATE

This is to certify that **Ms. Sowmya T,(USN 1CY18MCA63),** student of **MCA** from CMR Institute of Technology, has successfully completed the project entitled **"SOA PROTOCOL IMPLEMENTATION IN SEARCH ENGINE OPTIMIZING "** during the period from 09/01/2020 to 10/06/2020 at our organization **EBiX.BiZ** Bangalore, under my guidance and she has completed the work to my satisfaction.

Abhinav M

Team Lead

EBiX.BiZ

343/14, SR Arcade, 2nd Floor, Banaswadi, Bangalore - 560 043
Email : **abhinav_mca@live.in** | Website : **www.ebix.biz** | Mobile : **+91 9740640203**

CHAPTER 1

PROJECT DESCRIPTION

1.1PROJECT DESCRIPTION

The SOA or simple object protocol is the technology used for the integration of the systems which are under different configuration setups. This application is developed for SEO organisation for E marketing with advances marketing technique to find the right customers for the client users. For the sophisticated searching technique in SEO application the SOA will be interacting with different systems which has the architecture setup like Linux system, or module of third party developed in JAVA or any other Not a Microsoft based language etc. So In the SOA protocol based application architecture is build with elements needed to support SEO activities like hosting the advert, analysis customer view report. Payment received from the client and payment given to the hosting agent etc

SEO domain working details

SEO or search engine optimisation is the technology used for digital marketing by hosting the advertisements in the group of audience. The output from the audience performance from the different web host will be updated in the SEO centre to know the audience performance to the advert hosted. The SEO organisation can tie up with Google advert, the social media and other interment advert platform like new paper advert unit etc.

How the right audience found with advert portal ?

When the user visits the share market related page the advert AI will short list the user under the group share market interest user. Similar if the user search details over the books purchase the AI will group under the readers group. When an organisation wants to sell book as the advert product then all the users under reader category will be used and hosted in their Google advert or Facebook ad. When the ads are hosted the SEO will collect details like list of users visited and the how many users clicks the advertisement . The SOA protocol is the technology used for tracking various SOA based information which occur in the Advert portal, Ad host system portal, the plug in used for the payment based activities etc. For the better and error less transaction between the various portals in the software application SOA has important role in the architecture.

The modules

- The client module
- Search Engine Optimization module
- The third party Plug and payment gateway
- SOA protocol in network
- SEO and SOA administration module

The client module

The Client who register with SEO service providers and their work profile includes the E marketing, promotion and brand making for their products. This module has the control in the client's organisation registration check, entering the audience type , the payment gateway or wallet linking with the SEO organisation.

Search Engine Optimization module

This module has Search engine based activities like manage the client desire based advert, the setting of network with Team viewer for hosting activities. Boost the advert on the basis of the audience reach and the payment based operations.

The third party Plug and payment gateway

The application is connected with third party software tool for the enhancing the SOA operations. The payment integrations is also included in the module for the SOA backdrop operations. The setting in connection of different systems, analysing the system configuration and make the portal settings for efficient SOA operations.

SOA protocol in network

After the settings of SOA operations the next steps is with respect to SOA architecture operations, the SEO based SOA has the work details over the data security of the third party unit attached and the payment progresses initiated in the software. Depending on the clients requirement the architecture for the SOA will be added with more features for system configuration and network channels.

SEO and SOA administration module

This module has the direct interaction in the domain of SEO with SOA protocol communications. After a page is hosted in the advert of third party plug in the information regarding the advert like total people contacted, order product through online / by clicking the advert etc. The details which are migrated are originated from the machine with different platform and the operating systems.

1.2COMPANY PROFILE

EBiX.BiZ

Our Mission

Freelancing project with innovation concept and better business logic implementation for the client. These freelancing projects to aim the client to full fill their short term requirement and help the client to achieve the short term goals without any obstacle. Carefully understand the clients requirement their objective over the software based product and give high dimension over the business development.

Services List

Web & Graphic

Digital Marketing

Web Hosting

Training & Consulting

CHAPTER 2

LITERATURE SURVEY

2.1 EXISTING SYSTEM AND PROPOSED SYSTEM

In the existing system modules of SEO operations are operated separate modules. For example there is no direct interaction with events generated in the advert module and the SEO operations. The details from the SEO generated value are directly saved in the SQL or any other back end source and these details are manually imported or entered in the web ages directly by the user. The configuration mismatch over the system used in the SEO module and advert pages. If the developers tried to connect the advert with the users instruction generated from the SEO module this can cause an communication with ASP with no ASP application interactions and lead to technical error generation.

Limitation of existing system

- Operation of the SEO are developed and monitored in different department
- There is no centralised server used for the multiple SEO operations. The developers use separate data base for each department and the value storage.
- The work related to the SEO like target set, data integration with audience data base etc are developed within the local server.
- No direct interaction with third party advert plugs in and not able to view the response generated from the third party system.
- Giving instruction to third party plug ins feature is not available in the existing system.

Proposed system

All modules in the SEO operations connected with SOA features. The users of the application can view/ update any data which is located in any authorized system of any configuration settings. The instruction or user command which is generated from SEO system is now directly passed and operated in the advert manager systems. For example the tag user is created by the SEO application and the tag user data will be directly passed in the advert manager and the required user list will be short listed in the advert page with SOA features. In the existing system the list of short list users will be saved in the SQL and SEO units needed to fetch the data from the SQL and work for further SEO based instructions.

Advantage of proposed system

- SOA protocol used for the inter connecting the all the system with different integrated systems.
- Single data based for the saving the overall SEO activities. This will help the user of the SEO application view the overall SEO based model operations carried in the software.
- Developers create different SEO business model like promotion of the product, the target audience for each product are created which is passed to the centralised data base.
- The third party tool is included in the SOA architecture where the communication over Linux based OS or non ASP.NET project can interact directly over the data base.
- Instruction to the third party tool can be given from the SEO module and also the values generated from the third party tool or plug in can be used for the controls like advert boost and the payment calculations.

2.2 FEASIBLITY STUDY

The implementation of SOA in any module domain is challenging and developers are needed to conduct study to reduce the complexity. With depending the users module and the domain where the SOA is implemented the architecture and the developing steps will be different. And the communication of each module in the single domain is also follow the different steps towards the SOA techniques. The feasibility study is carried in the area of

- Technical feasibility
- Operational feasibility
- Cost feasibility

Technical feasibility

In the technical feasibility the developers needed to collect the total tool which are used for the SOA protocol setup and network based requirement collection. The developers are needed to make sure this SOA protocol based tools must be supportive to the Microsoft developers environment tools. The required compilers used for the ASP communication with field of cross language communication etc are collected for technical feasibility study.

Operational feasibility

Understanding the SOA and SEO domain operation interactions. When the developers create the data operation in the SEO model they need to make sure this can operate in all the architecture module created in the SOA protocol applications. If any of the system do not support data integration then developers need to create new operational set up. For example if the gateway based unit of SOA is in Linux OS then developers are needed install the plug in feature for the Linux to Windows tools like GETLIX plug in or complier integrations.

Cost feasibility

The total cost needed in the software implementation and the SOA architecture installed in the software over all domain. The cost of SAO is based in requirement given by the developers. The developing side users are needed to collect the total cost feasibility in the each module and analysis the possible cutback in the cost estimated in the module without the effecting the SOA performance. The total cost o SAO architecture maintenance charges and the cost collected from the client for the maintenance are brought study in the feasibility study. since the developers company use the SOA architecture for other clients (non SEO job) the total server cost will be higher and cannot be impulse overt the single client, When user gives the cost feasibility the total cost for the so

2.3 TOOLS AND TECHNOLOGY

The software application of SOA based Search engine optimization is developed in the ASP.NET. The SEO related module is a three tier architecture with Server page master page, C# coded middleware unit and the Data base in SQL. This architecture of three tier can be updated to four tier of network architecture of SOA application.

SEO domain (three tier architecture)

- ASP.NET
- C#.NET
- SQL

SOA based architecture

- Class designer for the SOA
- Data designer for SOA
- VMware

ASP.NET

The IDE used for the front end based software coding: all the paged in the SEO and the plug in module respect to the SEO is coded in ASP.NET. ASP has XML unit to operate the instructions received from the remote system

C#.NET

The SEO based arithmetic logical coding are developed in the C# language. In the work details like tag audience code, arithmetic logic used to find number of audience shortlisted for the SEO activities are generated in this module.

SQL

The application has two SQL server type for SEO operational details storage and the advert based data storage. The SQL for the SEO is installed in the local data base which has given standard type security and data access. And for the advert based SQL it has high end user pool and security added.

Class designer for the SOA

The software tool used for the auto generation of class in the software: with help of class designer tool, the developers will sketch the list of class and the object to connect the class from the different architecture. When developers write code for SEO controls developers can click the lick of the class created and write.

Data designer for SOA

The SOA based application has multi system server and multiple data base used for the software integrations. With help of data designer tools the developers can create the table list and provide virtual setup for system where the table is loaded. For example set bank based table to run in Linux configuration and the user instruction based system in the Windows.

VMware

Used for testing users. As we discusses in the data designer part the table will be run in multiple system configuration like Linux and Windows opera rating system. So before the actual application is loaded in the main stream test users create an dummy virtual system with Linux and Window where the sample table is created and joined.

2.4 HARDWARE AND SOFTWARE REQUIREMENTS.

Minimum hardware requirement

Processor	Pentium IV 3.0 GHz
RAM (SOA based)	512 MB
Hard disk (SOA based)	10.2 GB
Monitor (SOA based)	LCD
Keyboard (SOA based)	105 standard

Minimum software requirement

OS	Vista , windows 7 and above
Back end used (SOA based)	SQL 2008 R2
Front End used (SOA based)	HTML
Language used (SOA based)	C#, J Query,
IDE used (SOA based)	Visual Studio 2012 Express
Server used (SOA based)	TFS ,IIS
Testing software used (SOA based)	MTM

CHAPTER 3

SOFTWARE REQUIREMENTS SPECIFICATION

3.1 USERS TYPES

The users are put together under the activities given in the SEO and SAO based operation. The user who are working with SOA is technical supporting users where the users in the SEO based operations are grouped in clerk category. The list of users are as follows

- Admin – clerk group
- Business developer – clerk
- Accountant – clerk
- Network user for SOA group

Admin – clerk group

Module	**Admin clerks duty**
The client module	View and approve the client users authorization to access the client
Search Engine Optimization module	Create clerk for managing the SEO module. The work assignment based on SEO is also part of admin user duty
The third party Plug and payment gateway	Enter the connection details like server details, the password needed for the third party access are created by the admin users
SOA protocol in network	Read the update in the network module

Business developer – clerk

Module	**Business developer clerks duty**
The client module	View the product details from the client and create separate promotion code for the product
Search Engine Optimization module	A complete access in the SEO module which includes the tag audience search manually for the audience, search and migrate SEO based data.
The third party Plug and payment gateway	View in read format
SOA protocol in network	Access denied

Accountant – clerk

Module	Business developer clerks duty
The client module	Client based data will be in read only format for accountant
Search Engine Optimization module	Updating of SEO is not allowed, but the result form the SEO application is used by accountant to generate the billing.
The third party Plug and payment gateway	Permitted the access of the data integration of gateway with SEO. Manage the payment based details in the software.
SOA protocol in network	Access denied

Network user for SOA group

Module	Business developer clerks duty
The client module	Read format only
Search Engine Optimization module	IP address and the connection based details are permitted for the SOA group members
The third party Plug and payment gateway	Complete access in find the server details, user ID- Password management , these users not have
SOA protocol in network	Complete access to manage the protocol like finding the source machine configuration, generate the VM ware based virtual integrations and make the data flow more smooth.

3.2 FUNCTIONAL REQUIREMENTS

The functional requirement number: 1

The functional requirement name: priced by (CLIENT_REQUEST.ASPX)

Details : to generate the price of the product by analysing the user review, the sales in zone , increase in the total product sales

Input : manually enter the price in TXT_PRICED_BY

Process : check the validation in the text box priced by and save data in the SQL

Output : display the rate.

The functional requirement number: 2

The functional requirement name: to period

Details : the total number of the days the advert to run. Depending on the client budge the advert will be run from the selected data.

Input : manually enter the date

Process : check the data is not before the current system date. If not use algorithm to generate the end data by adding the number of days entered by the user.

Output : total number of days

The functional requirement number: 3

The functional requirement name: Days left

Details: Days left for the advert promotion

Input : NA

Process: auto generate the *end date* of the advert to run.

Output : display the end date.

The functional requirement number: 4

The functional requirement name: previous billing rate

Details: to find any pending payment for the selected user.

Input : NA

Process : fetch the customer ID and call method to calculate the total cost of billing, if total is not equal to zero , pass the rate to add with new bill number.

Output pending amount payable rate.

The functional requirement number: 5

The functional requirement name: total payable rate

Details : the amount generated by current rate, the pending date, the GST, service charge etc.

Input: NA

Process : auto fetch the customer ID call the method to generate the total cost payable

Output : value for total payable rate.

3.3 NON FUNCTIONAL REQUIREMENTS

The developers needed to carry out the total requirement carried out to find and improve the efficiency of SOA and the SEO operations of the software. This is not an future enhancement requirement gathering but finding the area of the currently developed and make non functional requirement to improve the system in the areas of

- Security
- Data integrity
- Portability
- Reliability

Security

The security of the data in the SOA architecture needed in addition care and the high authentication permission. The server and the path iteration in the SOA are accessed by the multiple users of the application users. The developers can use SOA pooling for the data security , Where the user to access the SOA server will be restricted by the number of users in the peak time. This process in the SOA security can give better security for the data.

Data integrity

The system and server interrogated in the SOA architecture and the data availability are discussed in the data integrity part. In the non functional requirement the developers will the gather the details needed for improving the data integrity features in the various configuration matched system.

Portability

SOA has better portability features since the architecture is created for the multi configuration interaction there are some areas where the portability are improved. Depending on the areas of domain there will be change occur in the SOA domain too. For example if SOA is implemented in the share market based company's SEO architecture the value will be fluctuate in very second and the steps needed for this SOA is different from the other products SEO works.

Reliability

The reliability in the SEO over SOA is in finding the right audience for the instruction generated form the SEO GUI. When the user created the instruction of the users to fetch from the advert module the parameters passed like tag, location, category is used to fetch advert portal of the targeted users. If the portal fetch the wrong portal details then the list of audience short listed will be wrong and advertisement will not show better output. So developers of SEO has to write more sharp program related to product to audience set.

CHAPTER 4

SYSTEM DESIGN

4.1 SYSTEM PERSPECTIVE

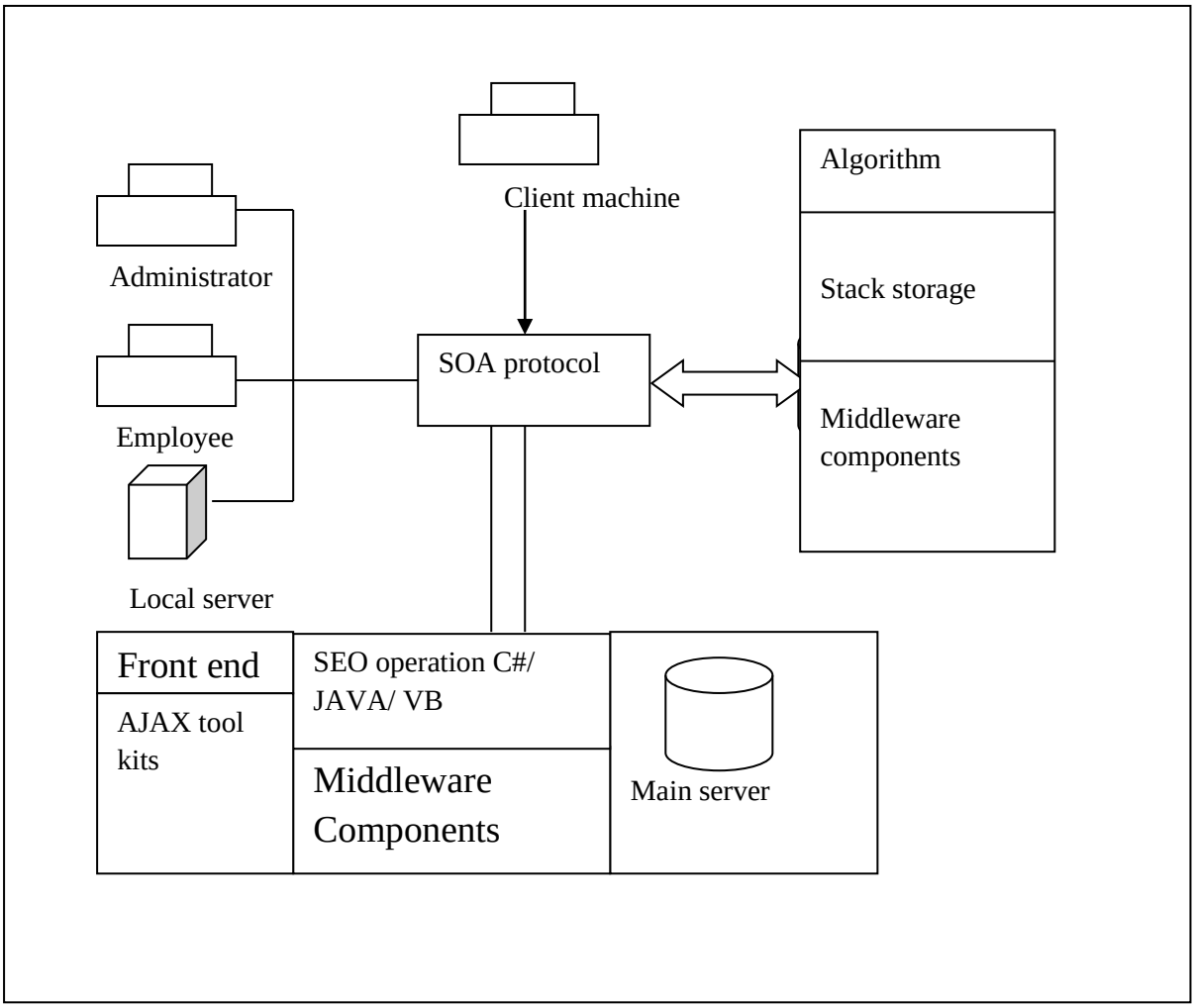


Fig 4.1: the architecture diagram

The SOA protocol in the application will act as intermediate between the client and SEO organisation machines. The algorithm of SOA based operation and the SEO are coded in different units of architecture. There is no direct access of SOA to SEO since the network based instruction is coded with multi language communications.

4.2 CONTEXT DIAGRAM

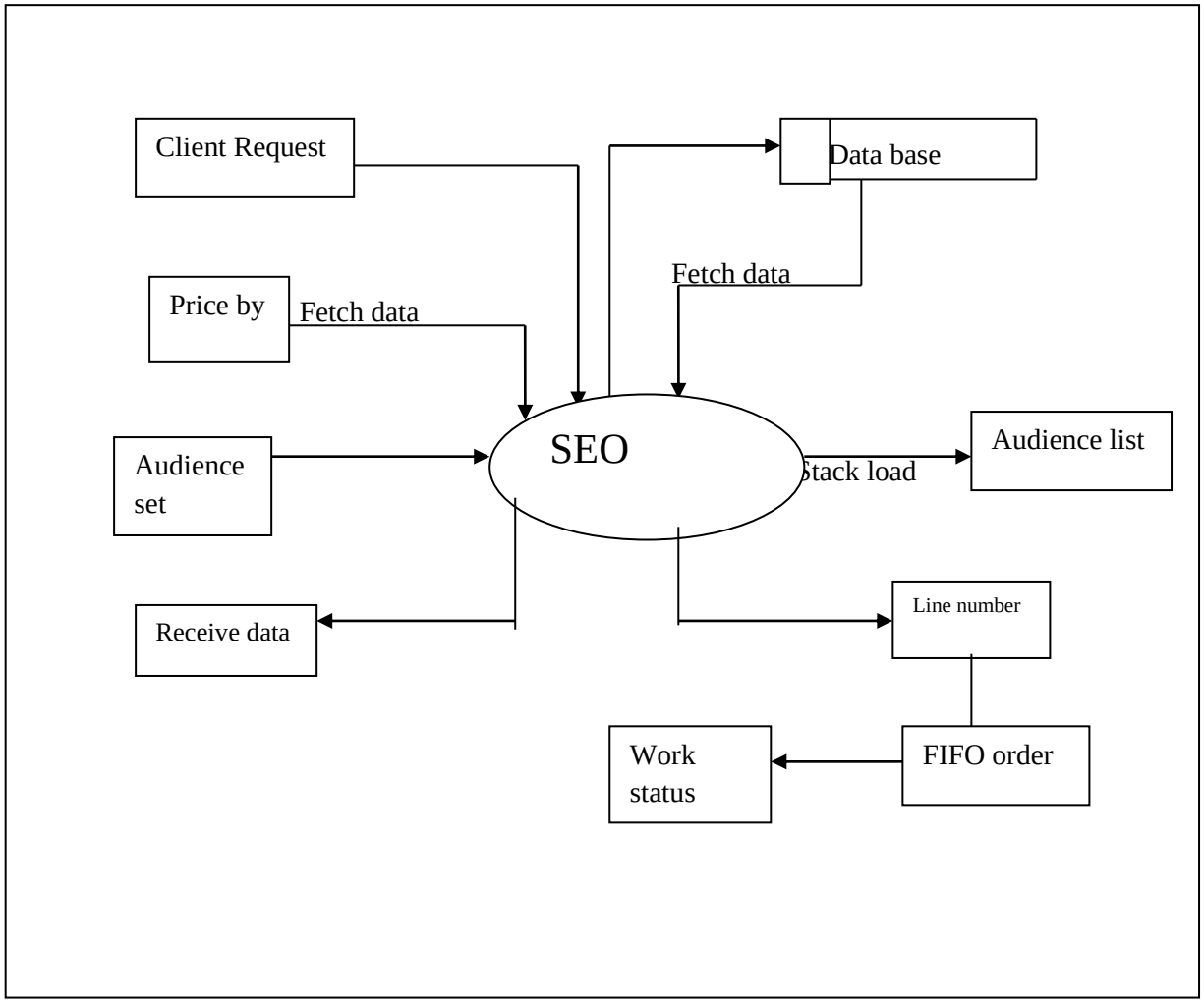


Fig 4.2: the context diagram over the SEO.

When the SEO based advert is created in the application the data instruction from the client for whom the advert is created, the business developers of the SEO are passed through SOA protocol. When the more advert are loaded in the network the data loading and processing are managed by data structure based FIFO order.

CHAPTER 5

DETAILED DESIGN

5.1 USE CASE DIAGRAM

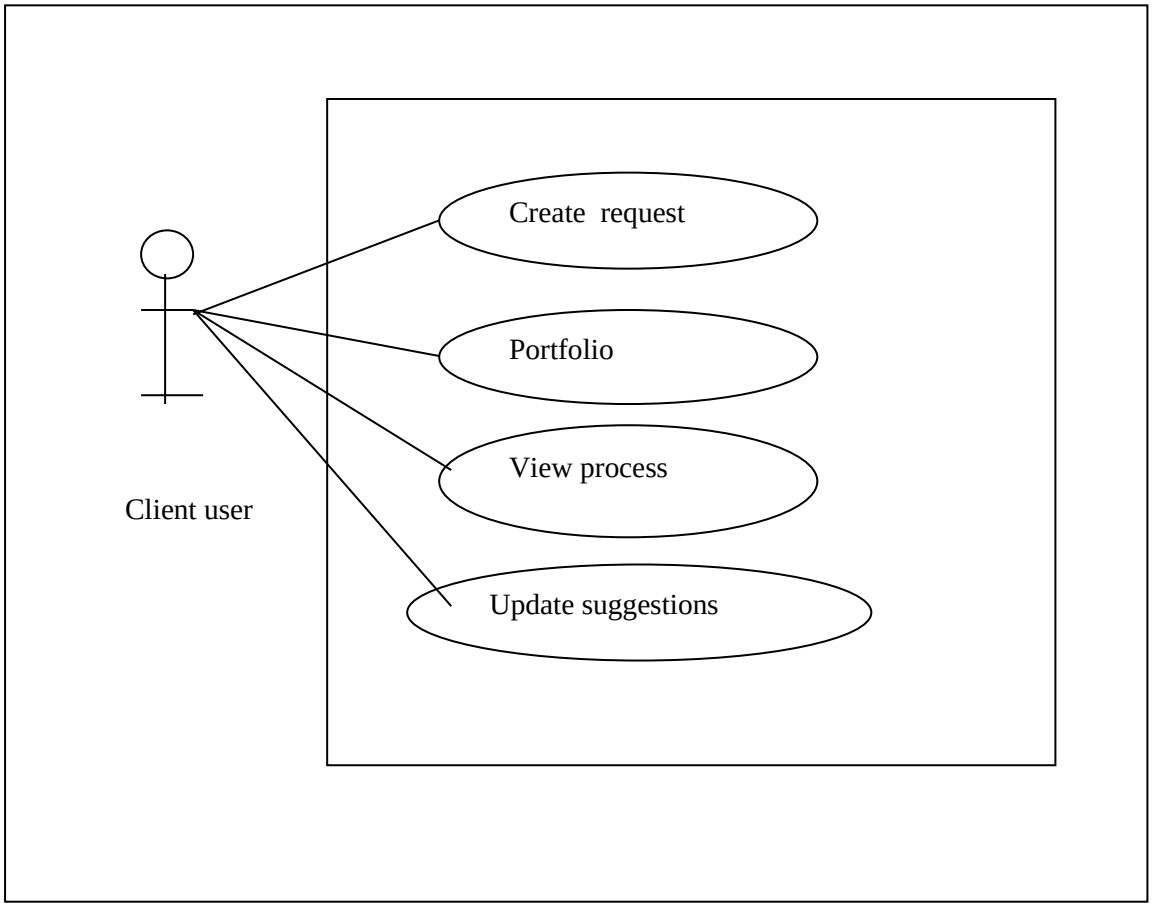


Fig 5.1.1: use case for client user.

The user from the client side will create a portfolio over the product and create request for the item to be E marketed. This information passed as non technical and do not have the E business processing techniques. So the business bases outputs or process made by SEO users will be able to view for the client users and are permitted to make updates suggestion in the process .

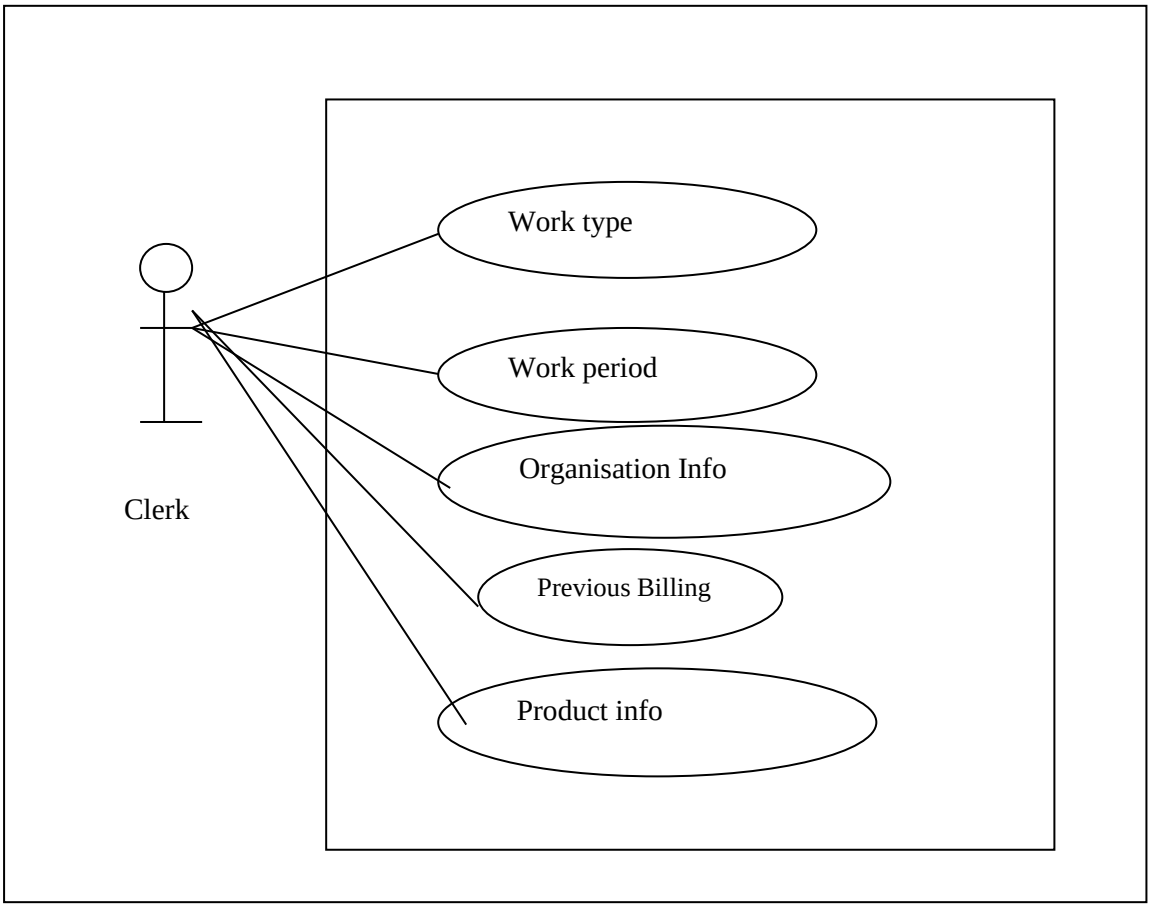


Fig 5.1.2: use case for the clerk .

The blue print in the SEO works are created by these users. The type of work to be created, the work period for each SEO adverts, the organisations list and work permitted for each profile are created by the users. The product details and the billing details are also added by these users for the business activities.

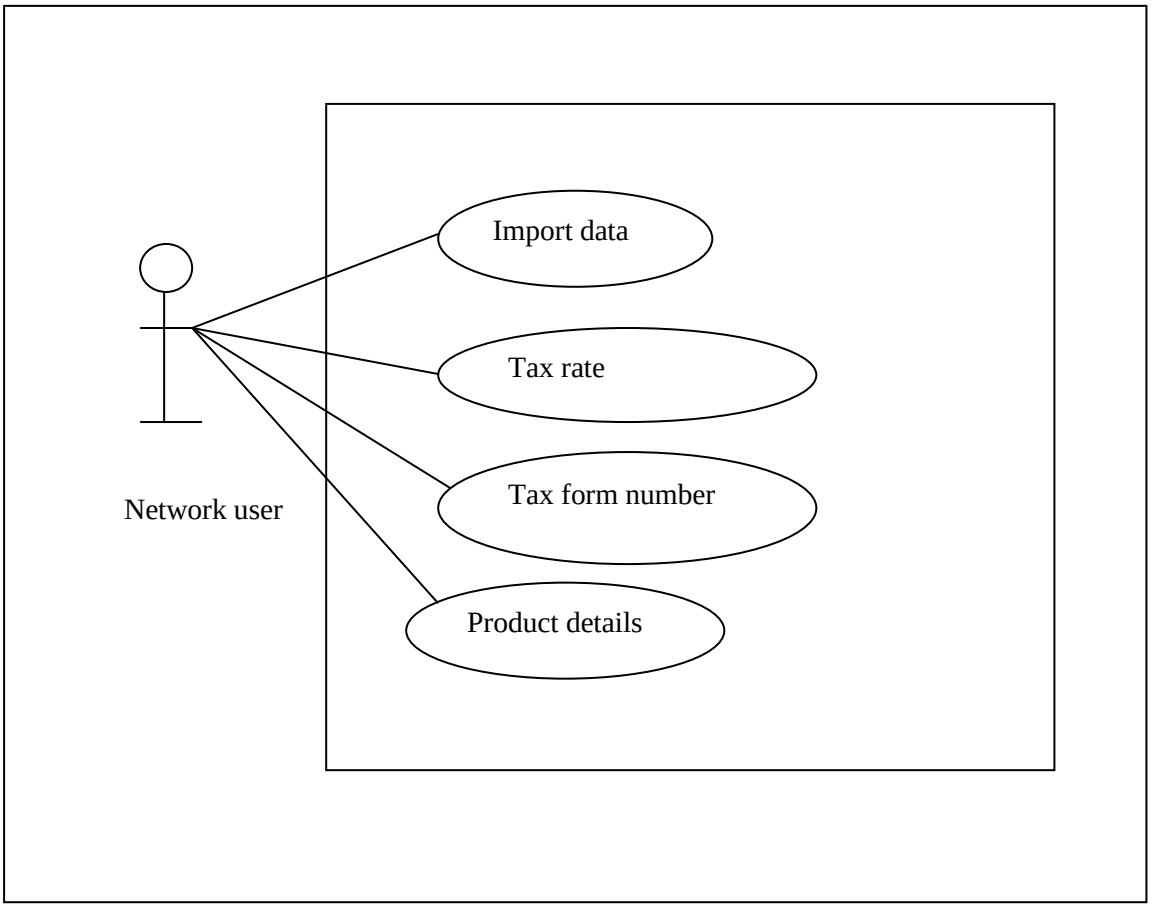


Fig 5.1.3: use case for the network user clerk.

The user who are authorized in managing the network based data import and calculations. The details which are saved in the SEO centralized server will be integrated and assigned to the product or the bill and the tax payable rate and the form are created.

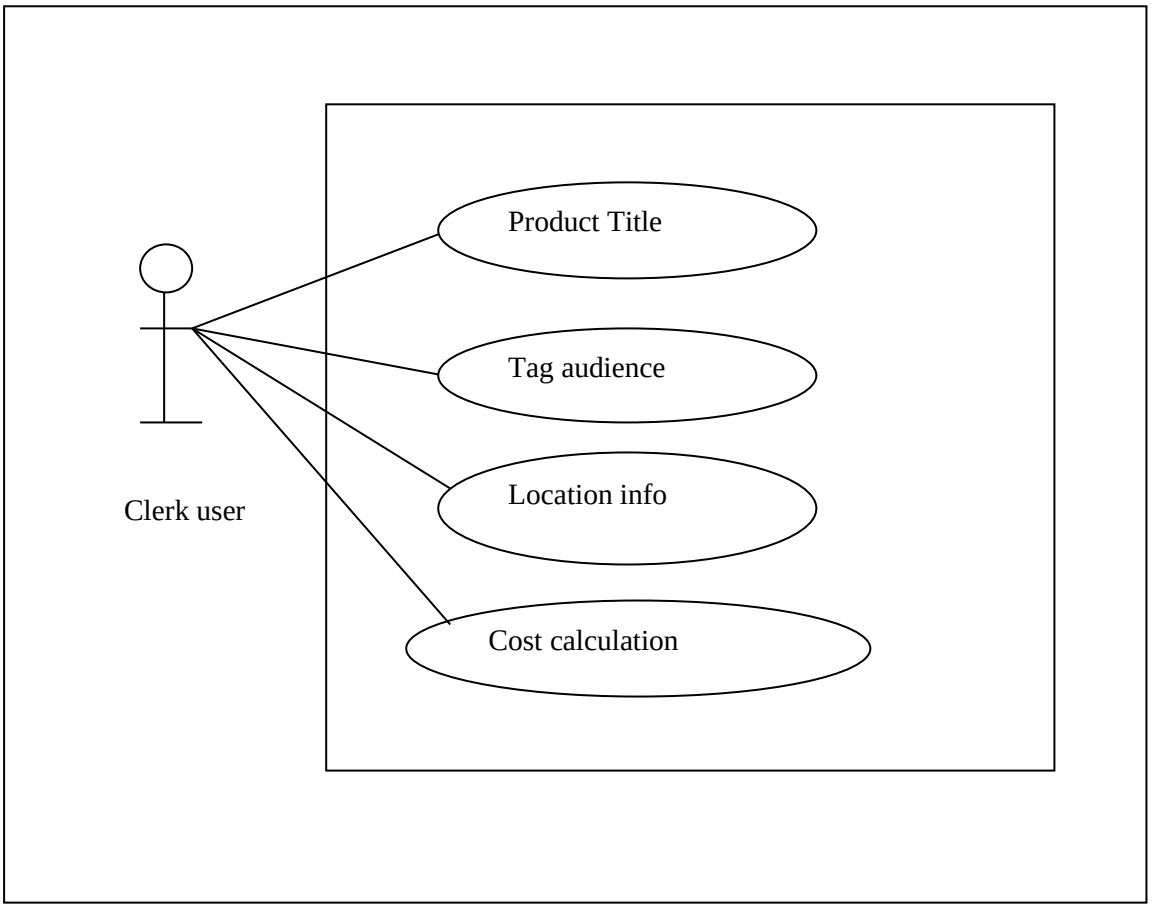


Fig 5.1.4: use case for the client who needed to sell the product

The clerks normally works in the SEO activities like create name for product promotion, the SEO based audience data connecting and generate the cost based integration for each products.

5.2 SEQUENCE DIAGRAM

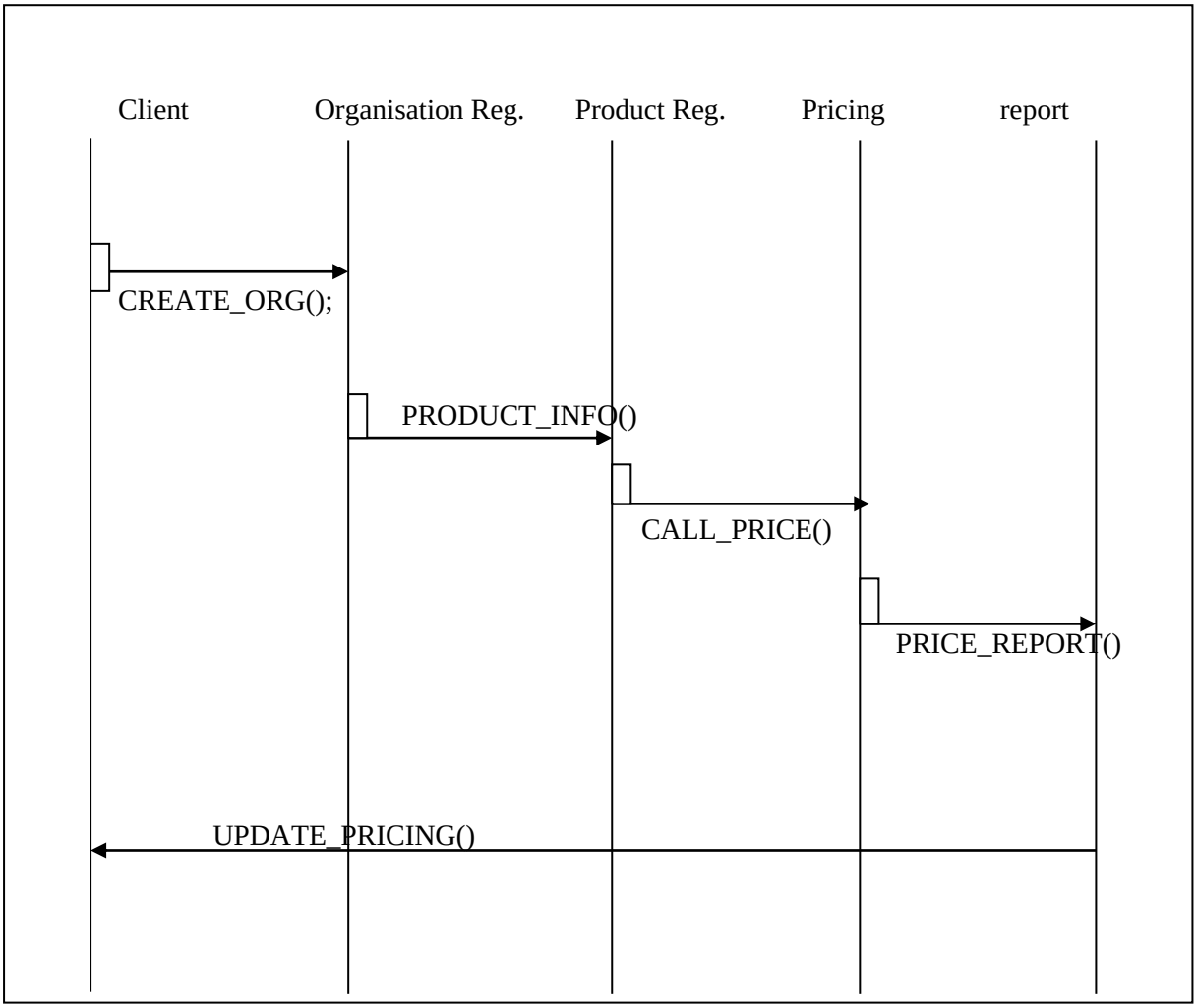


Fig 5.2.1: sequence diagram for the client duty over the SEO registrations.

The client create the product registration and the organisation registration where the sales and other expense are included in the organisation accounts. The pricing process is another step included in the SEO by matching other product cost and sales included in the same SEO advert promotions.

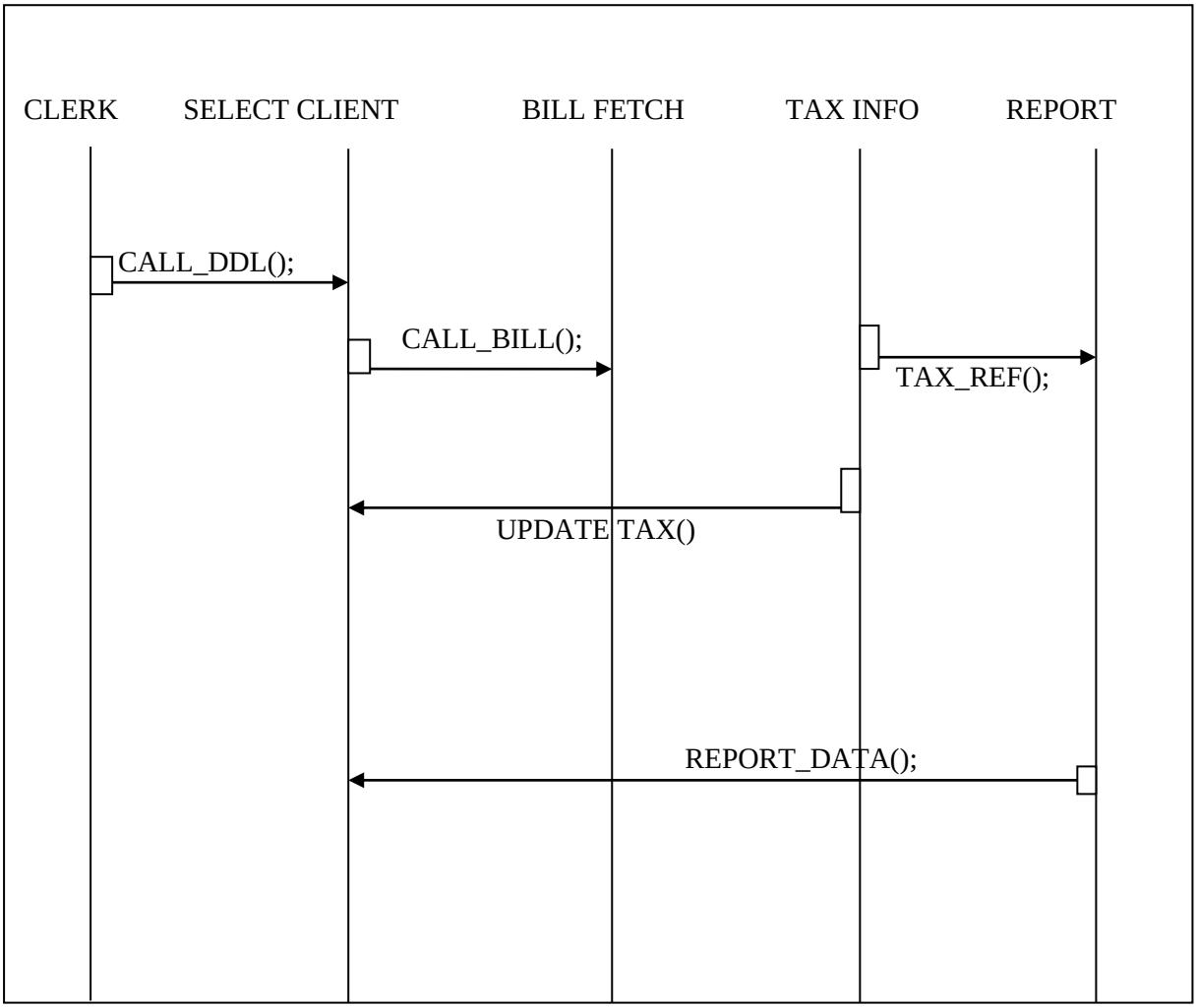


Fig 5.2.2: sequence diagram for clerk in bill and tax generations.

At the end of the tax payable quarter the clerk will select the entire client registered in the application. The SOA portal will fetch the bill from the registered organisation server and tax from the central server. This central serve will be update with the latest tax form the government with SOA network.

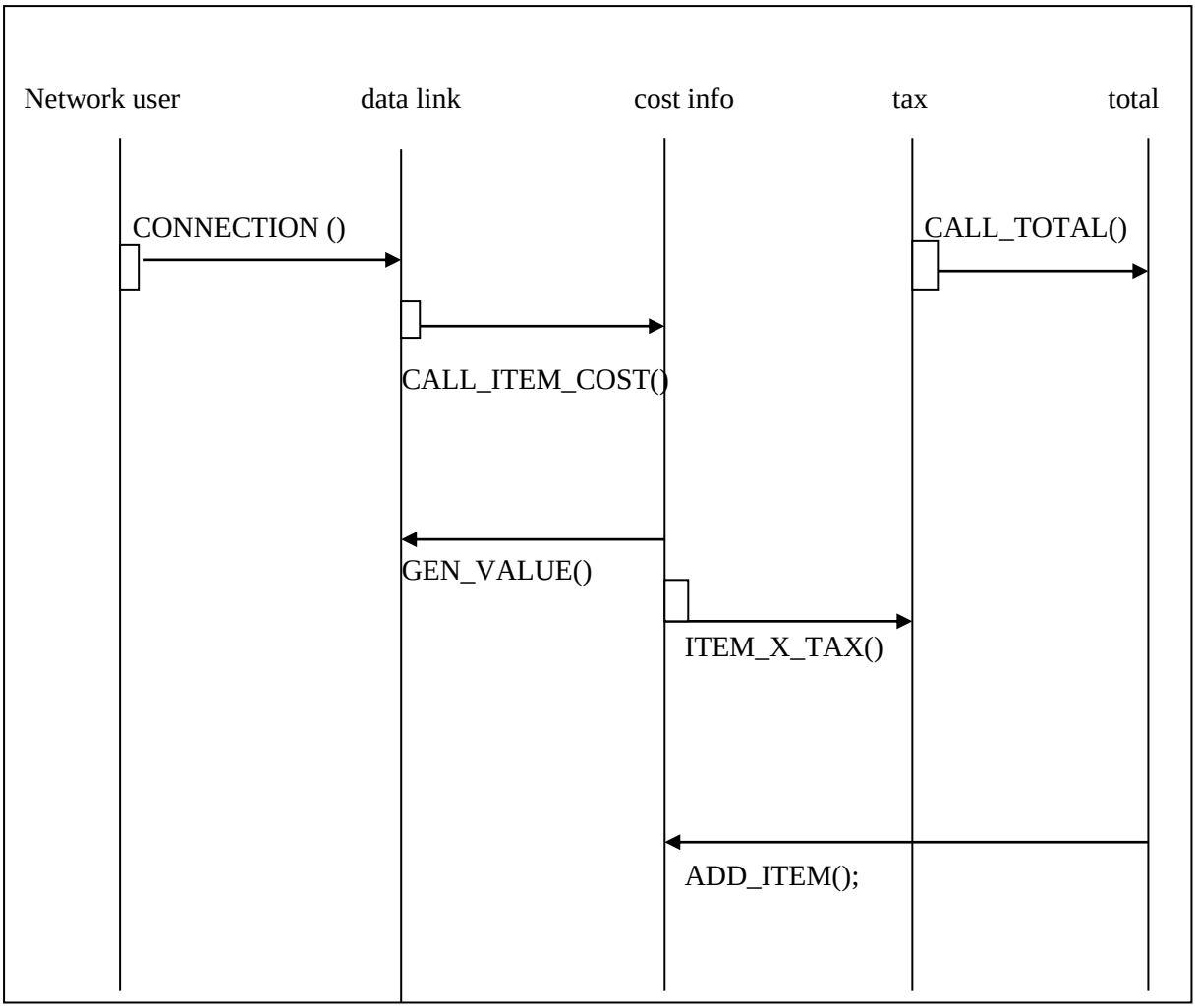


Fig 5.2.3: SOA based sequence diagram for item tag with tax .

For the tax generation the tax values are needed to fetched from the main server with respect to the item sold. When user gave instruction about the product for the marketing the SOA application will categories the product and cost for the total marketing , the tax and service charge based cost info will be created for the total amount payable.

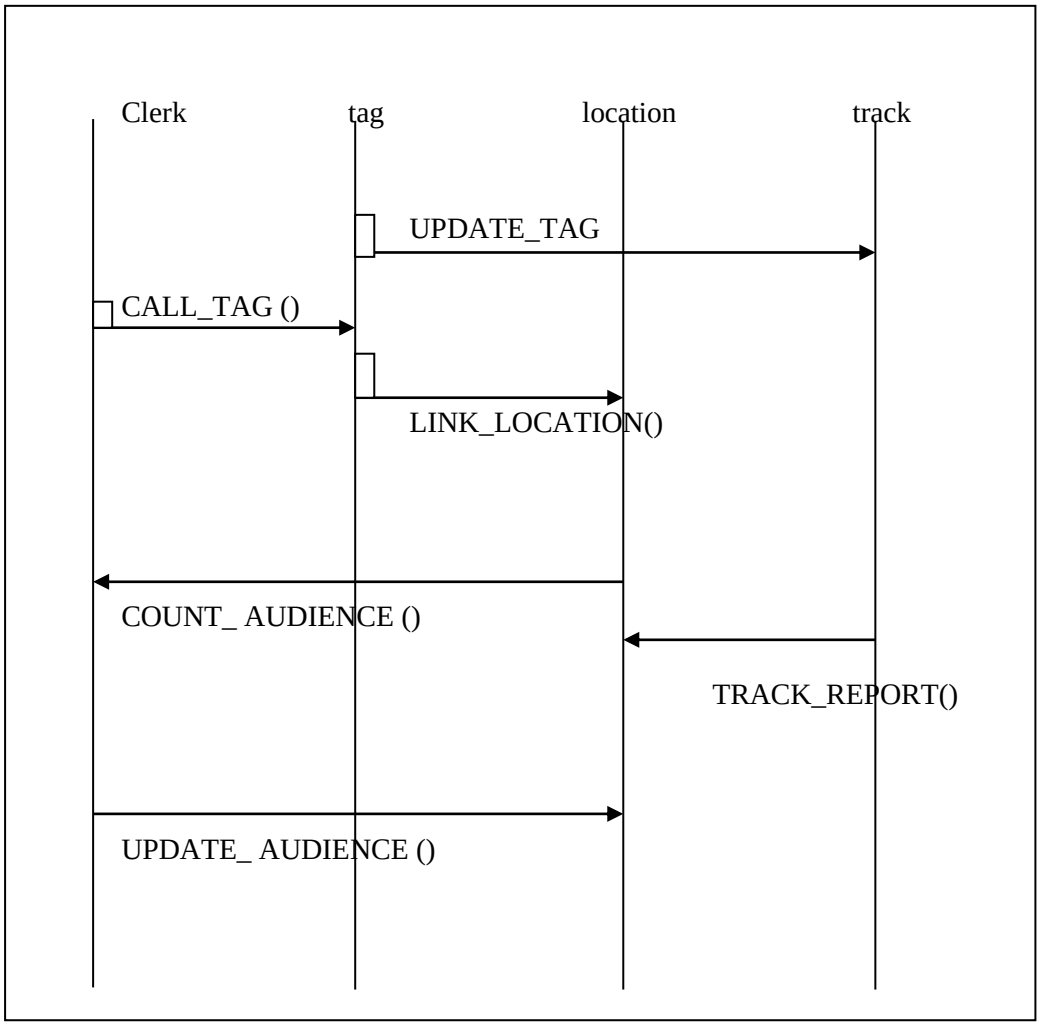


Fig 5.2.4: sequence diagram for tag the audience

After the product details received the SEO will give the audience group who are a possible customer for the products.. the user will tag the list of users and the SEO protocol will call the server and short list on the basis of the promotion budget created by the client .

5.3 COLLABORATION DIAGRAM

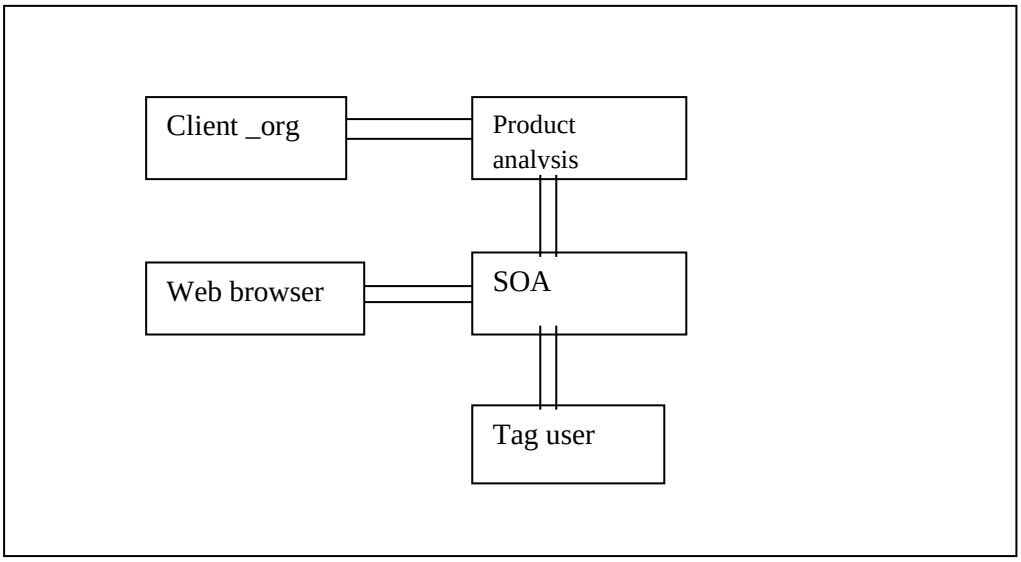


Fig 5.3.1: collaboration diagram as SOA as intermediate for product ad user tag.

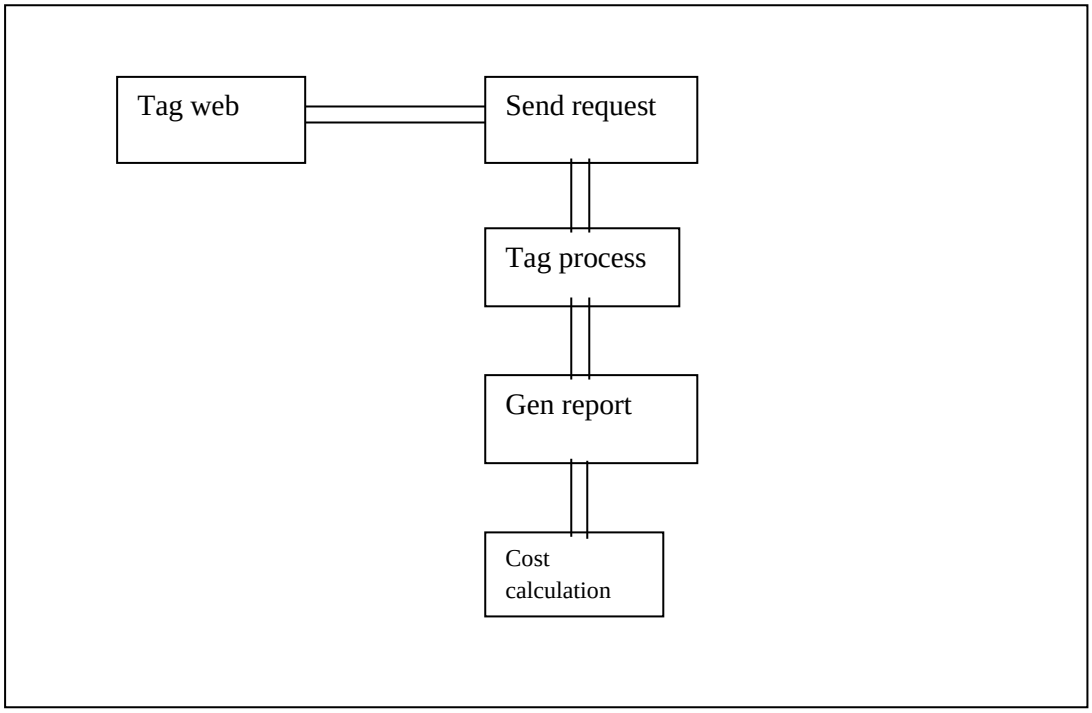


Fig 5.3.2: collaboration diagram for the tag activities.

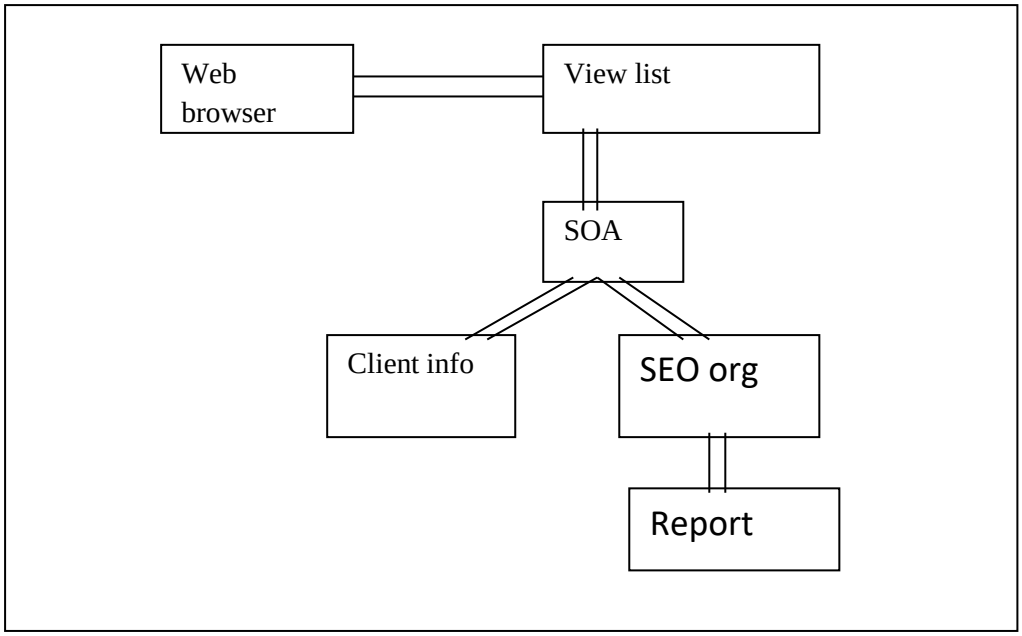


Fig 5.3.3: collaboration diagram for SOA in the client and org integrations

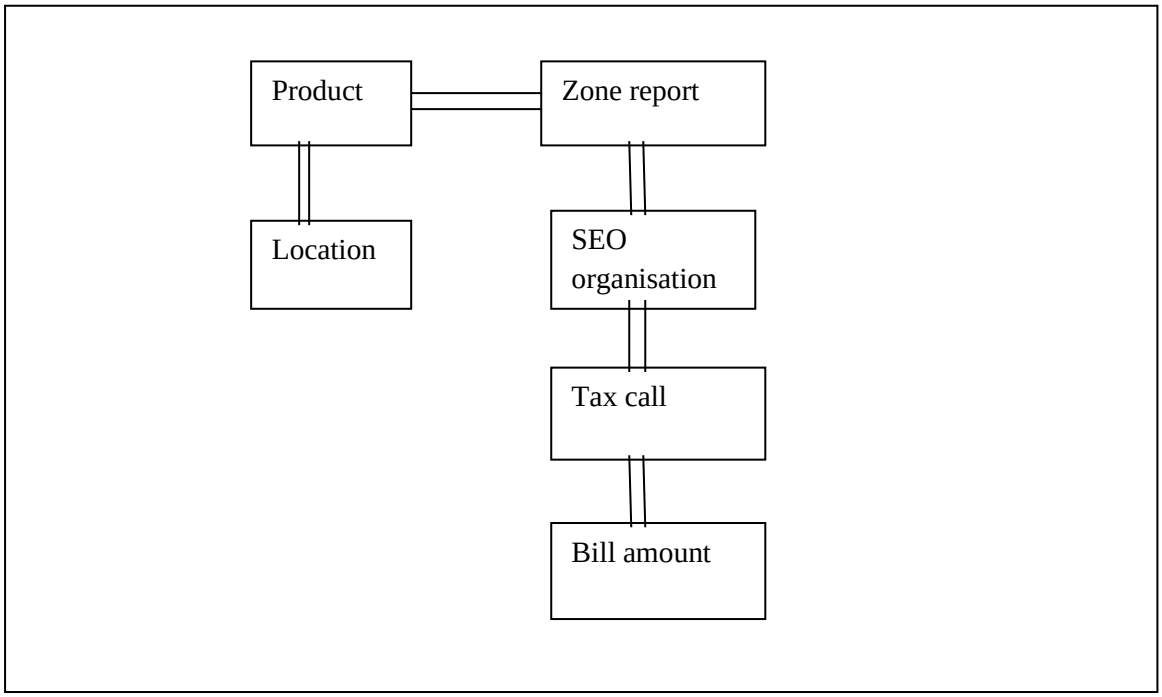


Fig 5.3.4: collaboration diagram for zone , the product and location for the billing.

5.4 ACTIVITY DIAGRAM

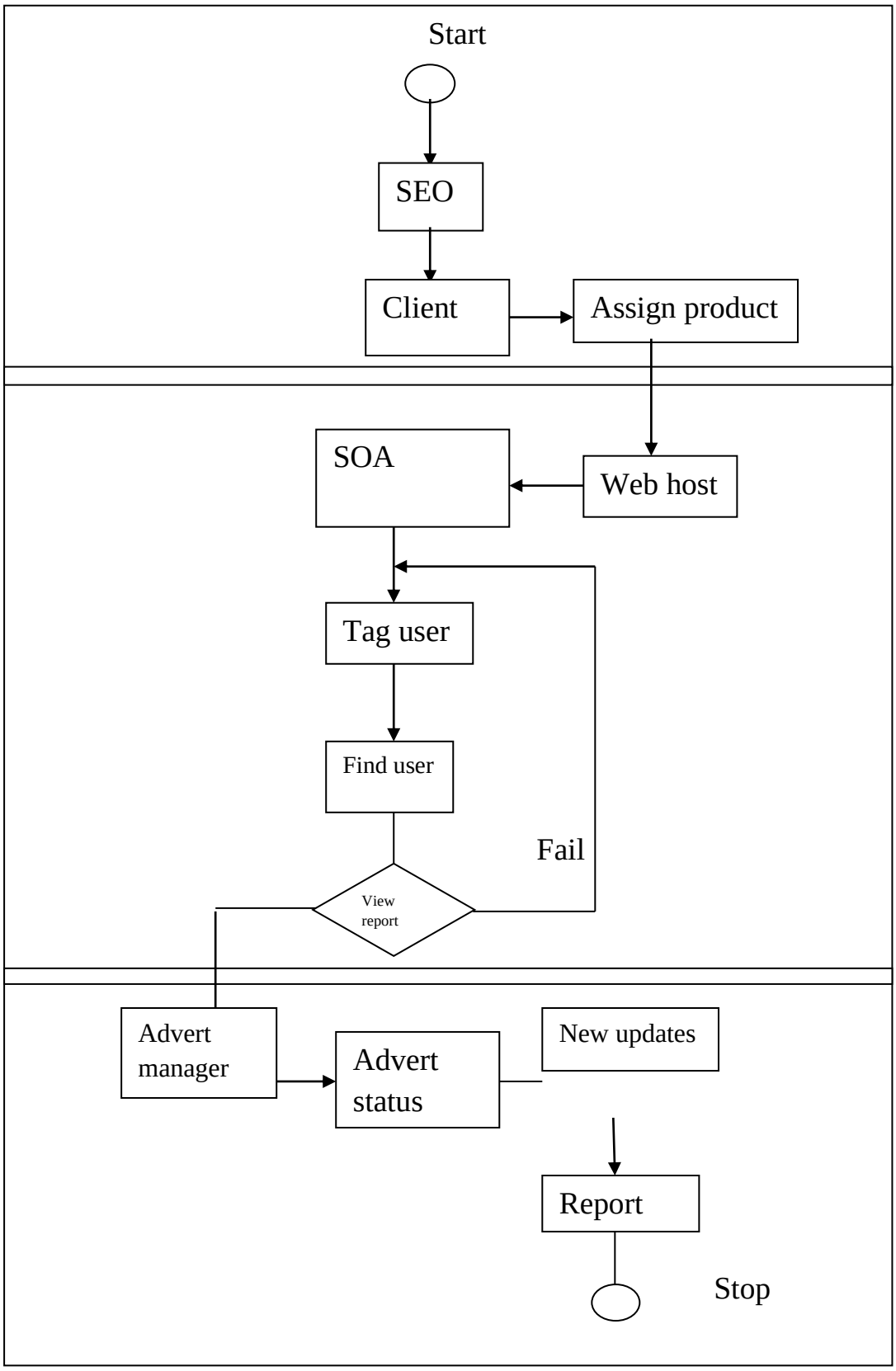


Fig 5.4.1: activity diagram for SOA and SEO based tag user inter face.

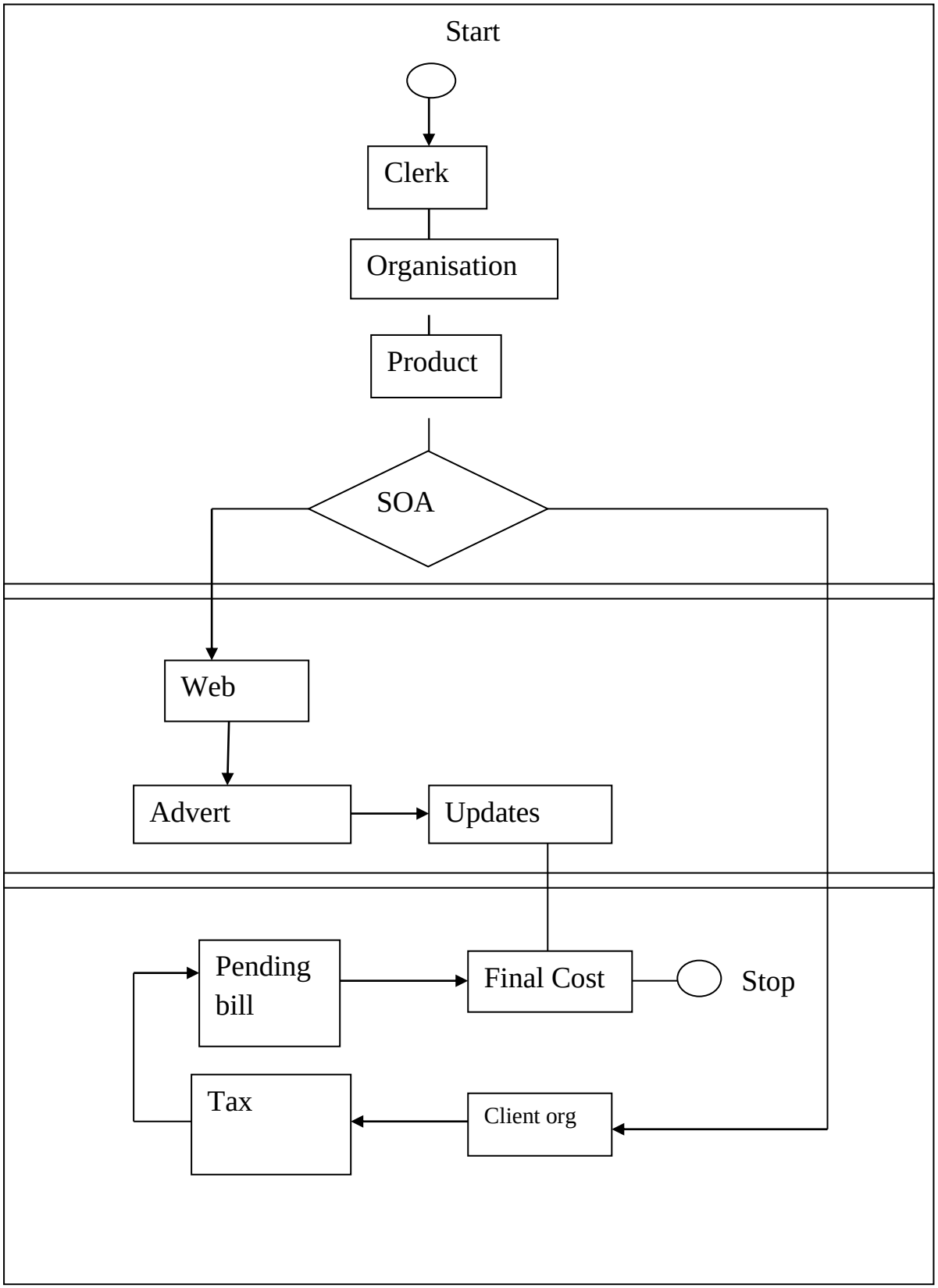
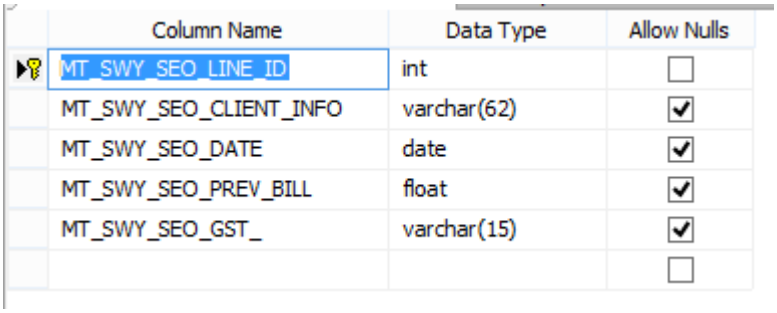


Fig 5.4.2: activity diagram for cost planning

5.5 DATABASE DESIGN

Table : DBO. MT_SWY_SEO_CLINET_INFO

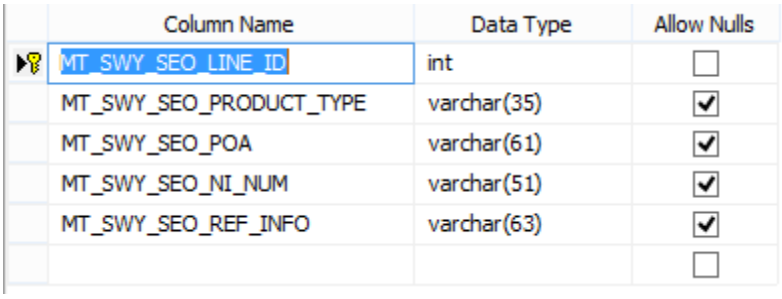
Table filed	Attribute	Data constraints
MT_SWY_SEO_LINE_ID	INT	PRIMARY KEY,
MT_SWY_SEO_CLIENT_INFO	VARCHAR(62)	NA
MT_SWY_SEO_DATE	DATE	NA
MT_SWY_SEO_PREV_BILL	FLOAT	NA
MT_SWY_SEO_GST_	VARCHAR(15)	NA



Column Name	Data Type	Allow Nulls
MT_SWY_SEO_LINE_ID	int	☐
MT_SWY_SEO_CLIENT_INFO	varchar(62)	☑
MT_SWY_SEO_DATE	date	☑
MT_SWY_SEO_PREV_BILL	float	☑
MT_SWY_SEO_GST_	varchar(15)	☑
		☐

Table : DBO. DBO.MT_SWY_SEO_LINE_INFO

Table filed	Attribute	Data constraints
MT_SWY_SEO_LINE_ID	INT	PRIMARY KEY,
MT_SWY_SEO_PRODUCT_TYPE	VARCHAR(35),	NA
MT_SWY_SEO_POA	VARCHAR(61),	NA
MT_SWY_SEO_NI_NUM	VARCHAR(51),	NA
MT_SWY_SEO_REF_INFO	VARCHAR(63)	NA



Column Name	Data Type	Allow Nulls
MT_SWY_SEO_LINE_ID	int	☐
MT_SWY_SEO_PRODUCT_TYPE	varchar(35)	☑
MT_SWY_SEO_POA	varchar(61)	☑
MT_SWY_SEO_NI_NUM	varchar(51)	☑
MT_SWY_SEO_REF_INFO	varchar(63)	☑
		☐

Table : DBO. MT_SWY_SEO_REPORT

Table filed	Attribute	Data constraints
MT_SWY_SEO_LINE_ID	INT	PRIMARY KEY,
MT_SWY_SEO_SALES_PERFOMANCE	INT	NA
MT_SWY_SEO_OTHER_SOURCE	INT	NA
MT_SWY_SEO_SERVER_CLICK	INT	NA
MT_SWY_SEO_REMARK	VARCHAR(200)	NA

Column Name	Data Type	Allow Nulls
MT_SWY_SEO_LINE_ID	int	☐
MT_SWY_SEO_SALES_PERFOMANCE	int	☑
MT_SWY_SEO_OTHER_SOURCE	int	☑
MT_SWY_SEO_SERVER_CLICK	int	☑
MT_SWY_SEO_REMARK	varchar(200)	☑
		☐

Table : DBO. MT_SWY_SEO_TAG

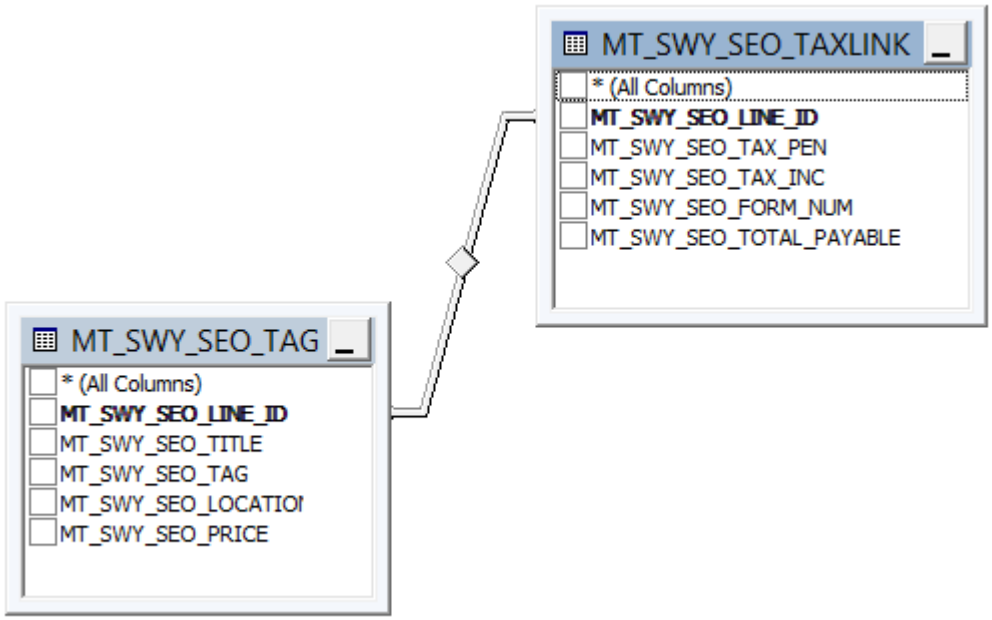
Table filed	Attribute	Data constraints
MT_SWY_SEO_LINE_ID	INT	PRIMARY KEY,
MT_SWY_SEO_TITLE	VARCHAR(33)	NA
MT_SWY_SEO_TAG	VARCHAR(200)	NA
MT_SWY_SEO_LOCATION	VARCHAR(15)	NA
MT_SWY_SEO_PRICE	FLOAT	NA

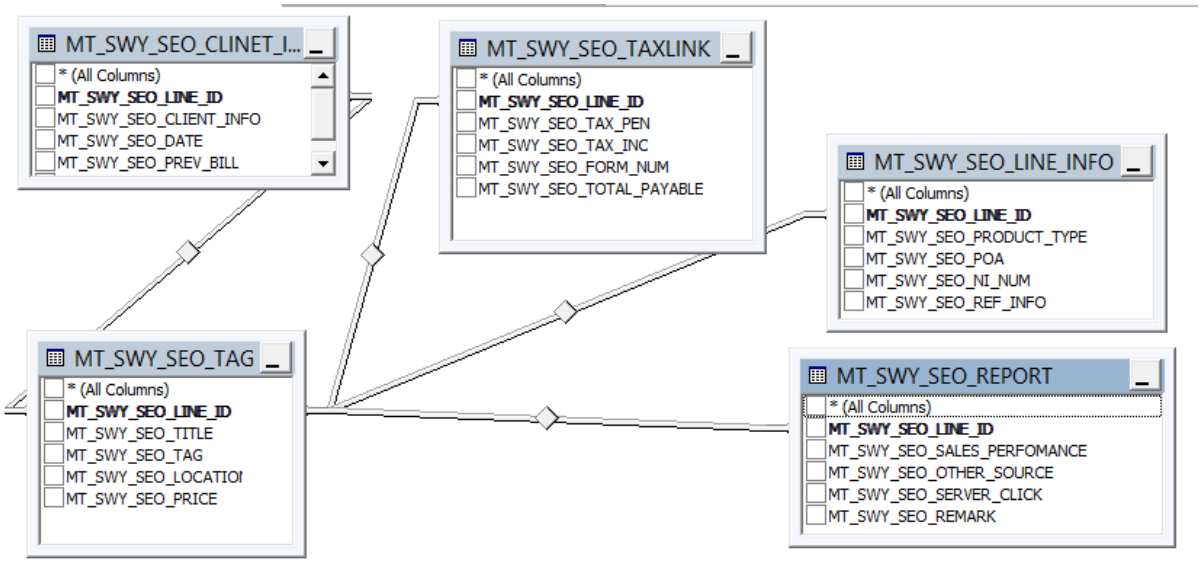
Column Name	Data Type	Allow Nulls
MT_SWY_SEO_LINE_ID	int	☐
MT_SWY_SEO_TITLE	varchar(33)	☑
MT_SWY_SEO_TAG	varchar(200)	☑
MT_SWY_SEO_LOCATION	varchar(15)	☑
MT_SWY_SEO_PRICE	float	☑
		☐

Table : DBO. MT_SWY_SEO_TAXLINK

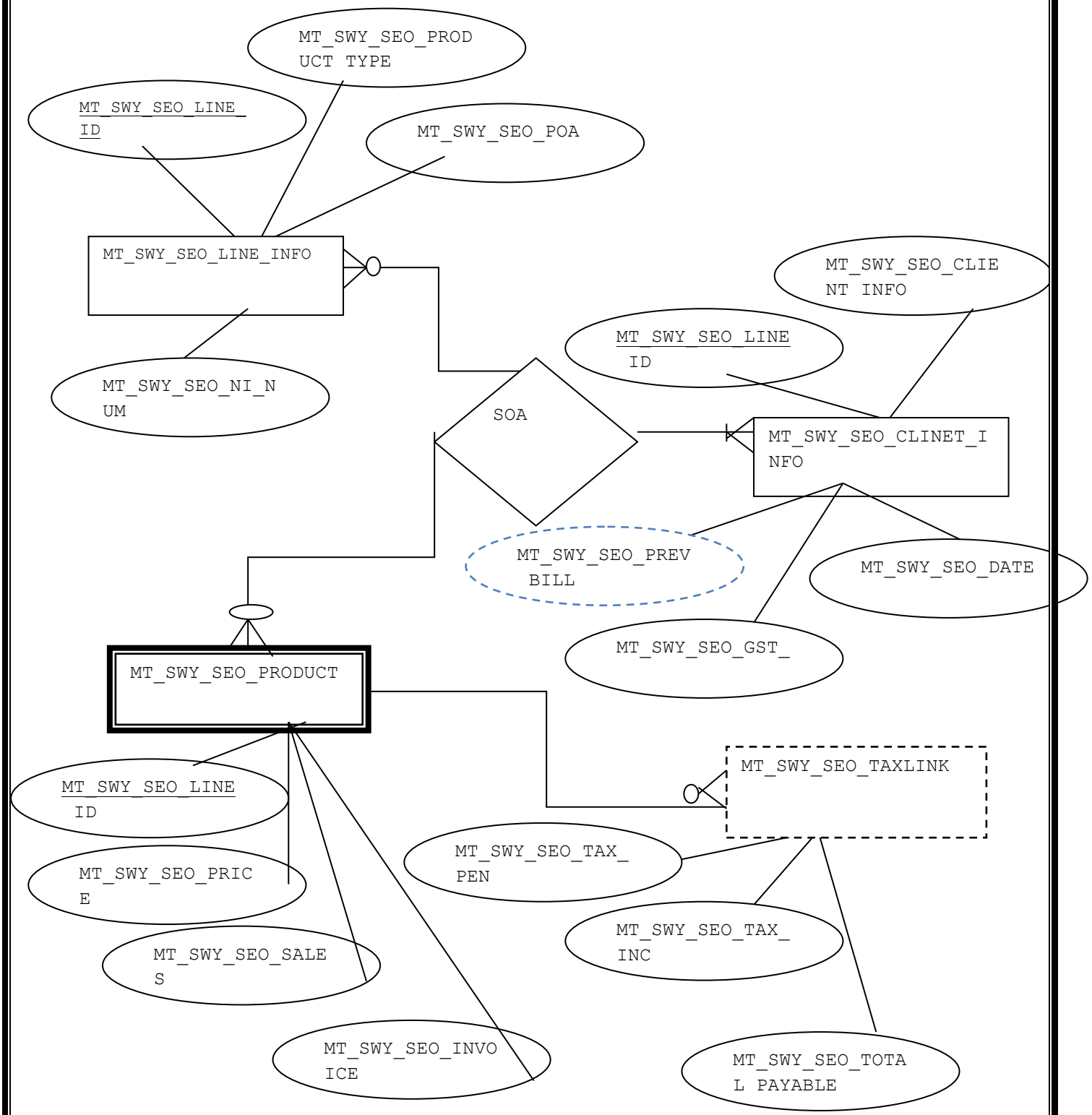
Table filed	Attribute	Data constraints
MT_SWY_SEO_LINE_ID	INT	PRIMARY KEY,
MT_SWY_SEO_TAX_PEN	FLOAT,	NA
MT_SWY_SEO_TAX_INC	FLOAT	NA
MT_SWY_SEO_FORM_NUM	CHAR(5),	NA
MT_SWY_SEO_TOTAL_PAYABLE	FLOAT	NA

Column Name	Data Type	Allow Nulls
MT_SWY_SEO_LINE_ID	int	☐
MT_SWY_SEO_TAX_PEN	float	☑
MT_SWY_SEO_TAX_INC	float	☑
MT_SWY_SEO_FORM_NUM	char(5)	☑
MT_SWY_SEO_TOTAL_PAYABLE	float	☑
		☐


MT_SWY_SEO_TAXLINK
* (All Columns)
MT_SWY_SEO_LINE_ID
MT_SWY_SEO_TAX_PEN
MT_SWY_SEO_TAX_INC
MT_SWY_SEO_FORM_NUM
MT_SWY_SEO_TOTAL_PAYABLE
MT_SWY_SEO_TAG
* (All Columns)
MT_SWY_SEO_LINE_ID
MT_SWY_SEO_TITLE
MT_SWY_SEO_TAG
MT_SWY_SEO_LOCATIOI
MT_SWY_SEO_PRICE


MT_SWY_SEO_CLINET_I...
* (All Columns)
MT_SWY_SEO_LINE_ID
MT_SWY_SEO_CLIENT_INFO
MT_SWY_SEO_DATE
MT_SWY_SEO_PREV_BILL
MT_SWY_SEO_TAXLINK
* (All Columns)
MT_SWY_SEO_LINE_ID
MT_SWY_SEO_TAX_PEN
MT_SWY_SEO_TAX_INC
MT_SWY_SEO_FORM_NUM
MT_SWY_SEO_TOTAL_PAYABLE
MT_SWY_SEO_LINE_INFO
* (All Columns)
MT_SWY_SEO_LINE_ID
MT_SWY_SEO_PRODUCT_TYPE
MT_SWY_SEO_POA
MT_SWY_SEO_NI_NUM
MT_SWY_SEO_REF_INFO
MT_SWY_SEO_TAG
* (All Columns)
MT_SWY_SEO_LINE_ID
MT_SWY_SEO_TITLE
MT_SWY_SEO_TAG
MT_SWY_SEO_LOCATIOI
MT_SWY_SEO_PRICE
MT_SWY_SEO_REPORT
* (All Columns)
MT_SWY_SEO_LINE_ID
MT_SWY_SEO_SALES_PERFOMANCE
MT_SWY_SEO_OTHER_SOURCE
MT_SWY_SEO_SERVER_CLICK
MT_SWY_SEO_REMARK

ER diagram


MT_SWY_SEO_PROD UCT TYPE
MT_SWY_SEO_LINE_ ID
MT_SWY_SEO_POA
MT_SWY_SEO_LINE_INFO
MT_SWY_SEO_CLIE NT INFO
MT_SWY_SEO_LINE ID
MT_SWY_SEO_NI_N UM
SOA
MT_SWY_SEO_CLINET_I NFO
MT_SWY_SEO_PREV BILL
MT_SWY_SEO_DATE
MT_SWY_SEO_GST_
MT_SWY_SEO_PRODUCT
MT_SWY_SEO_TAXLINK
MT_SWY_SEO_LINE ID
MT_SWY_SEO_TAX_ PEN
MT_SWY_SEO_PRIC E
MT_SWY_SEO_TAX_ INC
MT_SWY_SEO_SALE S
MT_SWY_SEO_INVO ICE
MT_SWY_SEO_TOTA L PAYABLE

CHAPTER 6

IMPLEMENTATION

6.1 SCREENSHOT

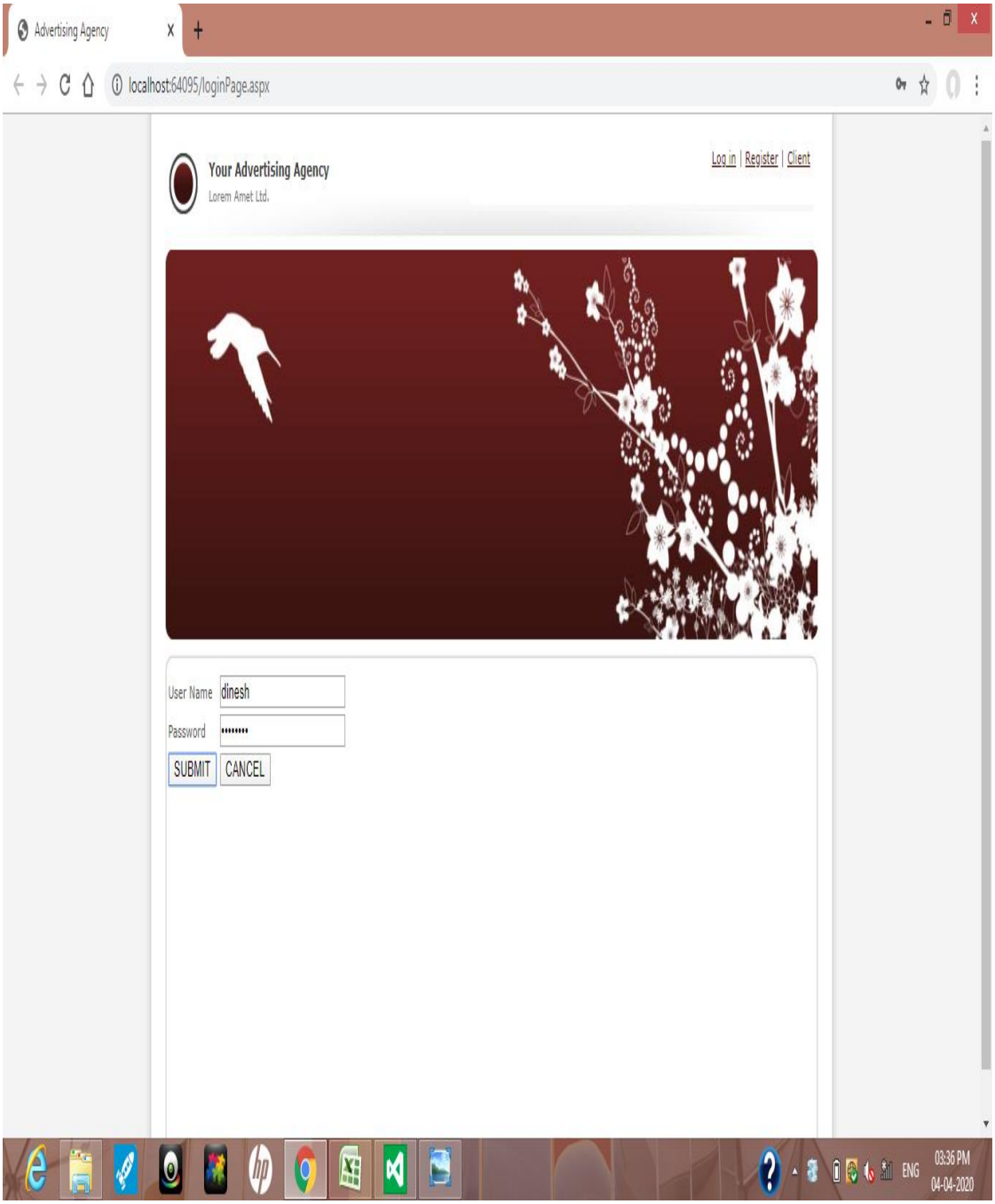


Fig 1 .login page.

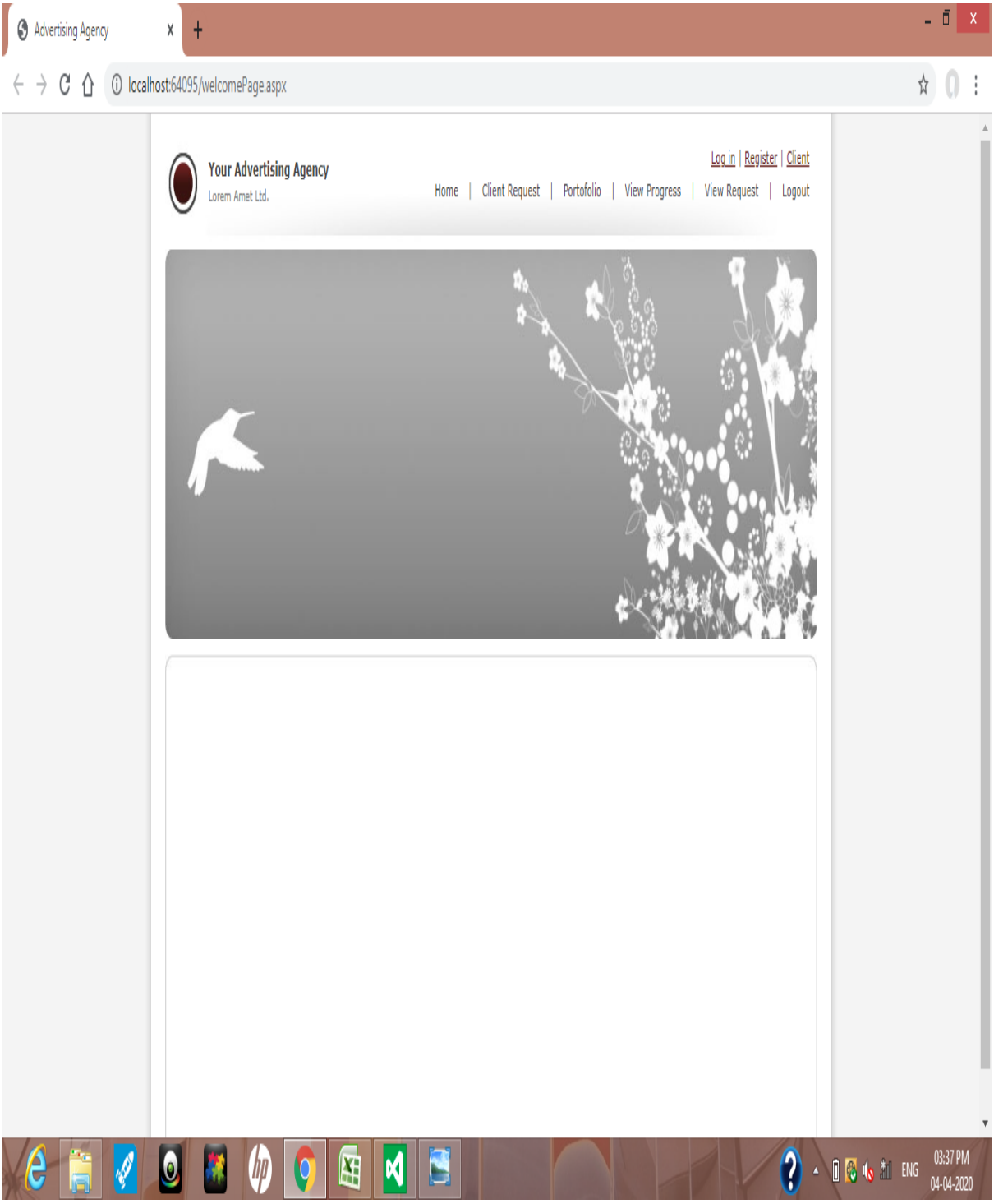


Fig 2: the welcome page for the registered user.

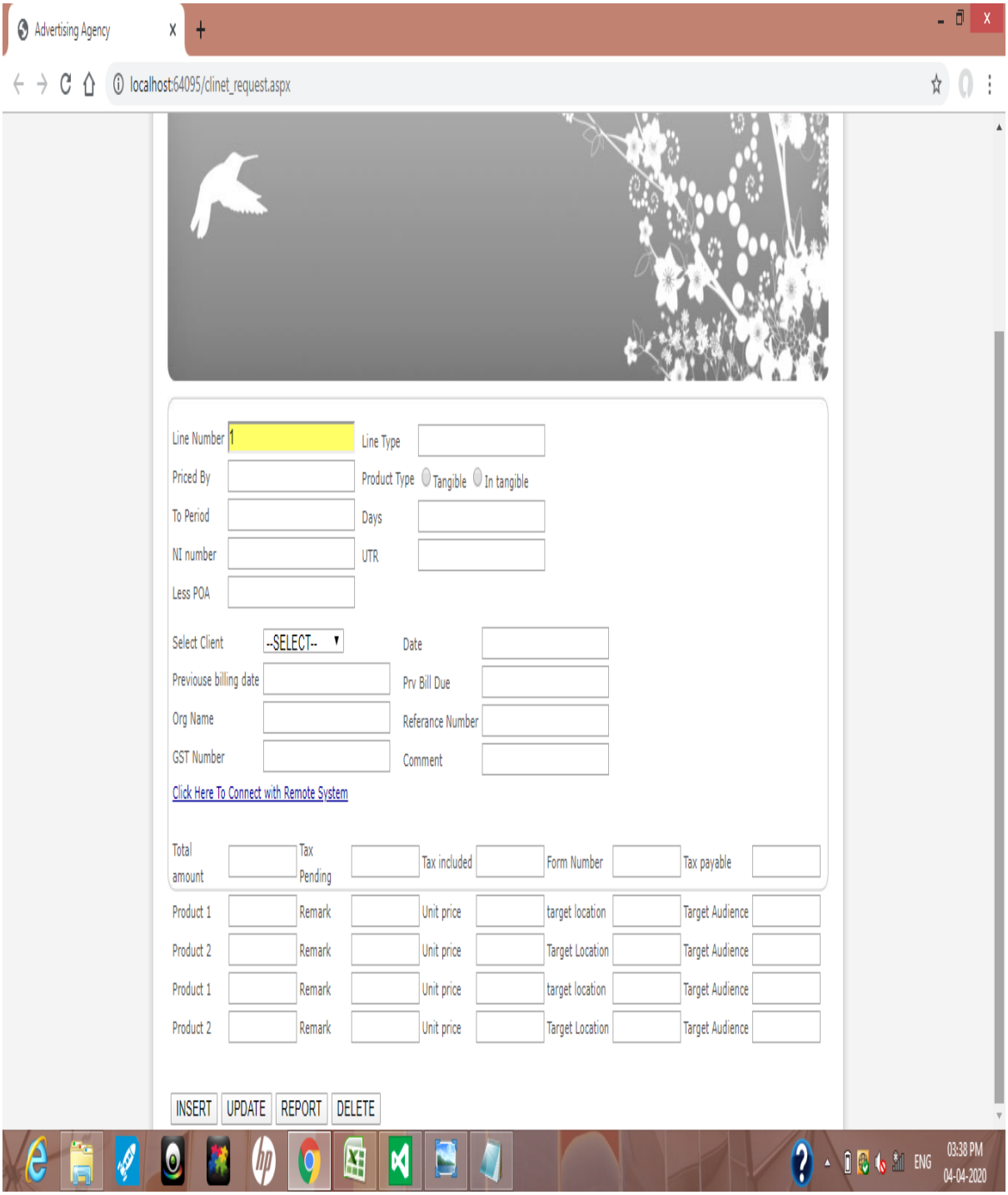


Fig 3: the web form for creating the client's request for the SOA based advert promotion.

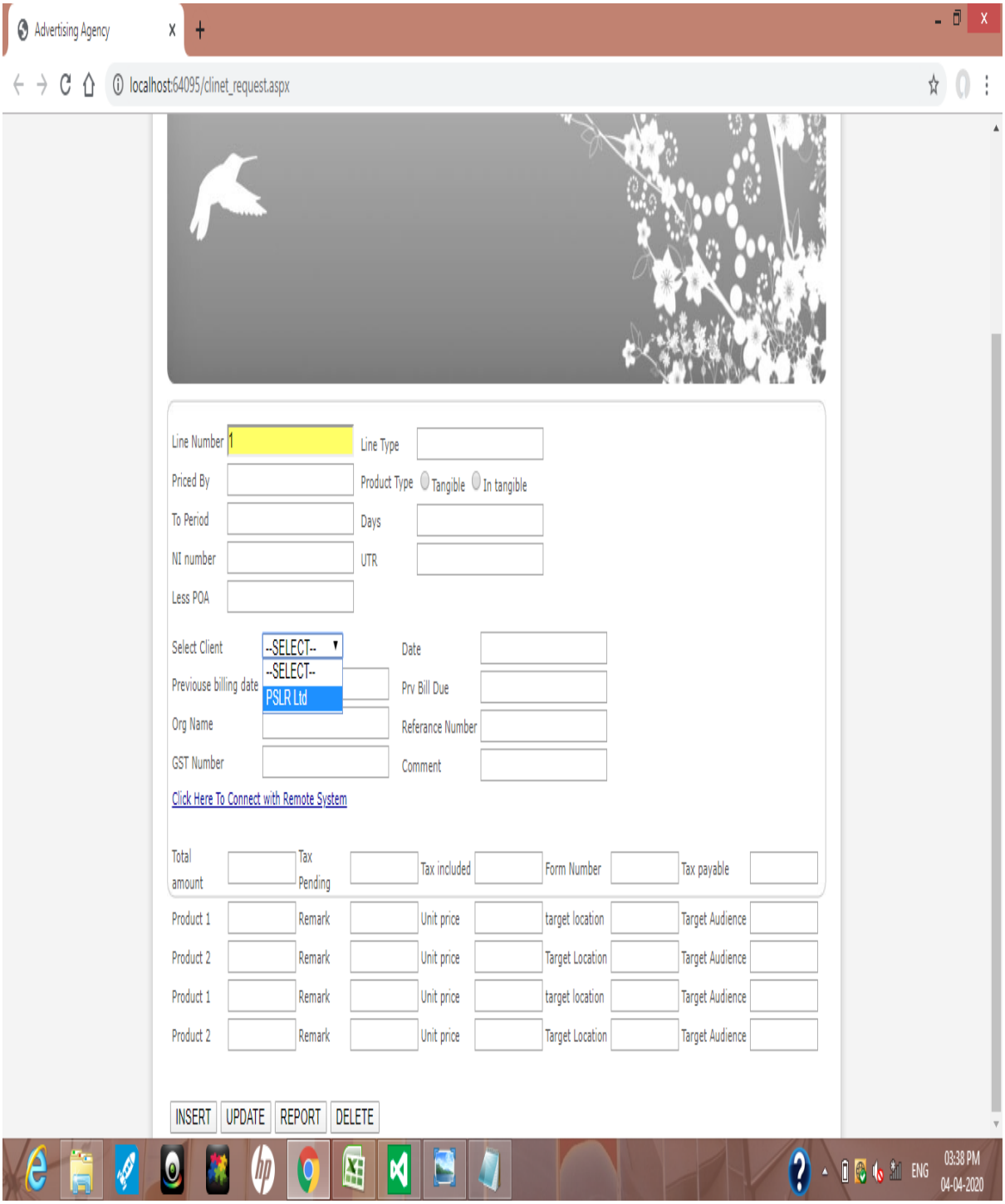


Fig 4 : Select the client details form the drop down list where the SOA architecture will fetch the data and load in the page.

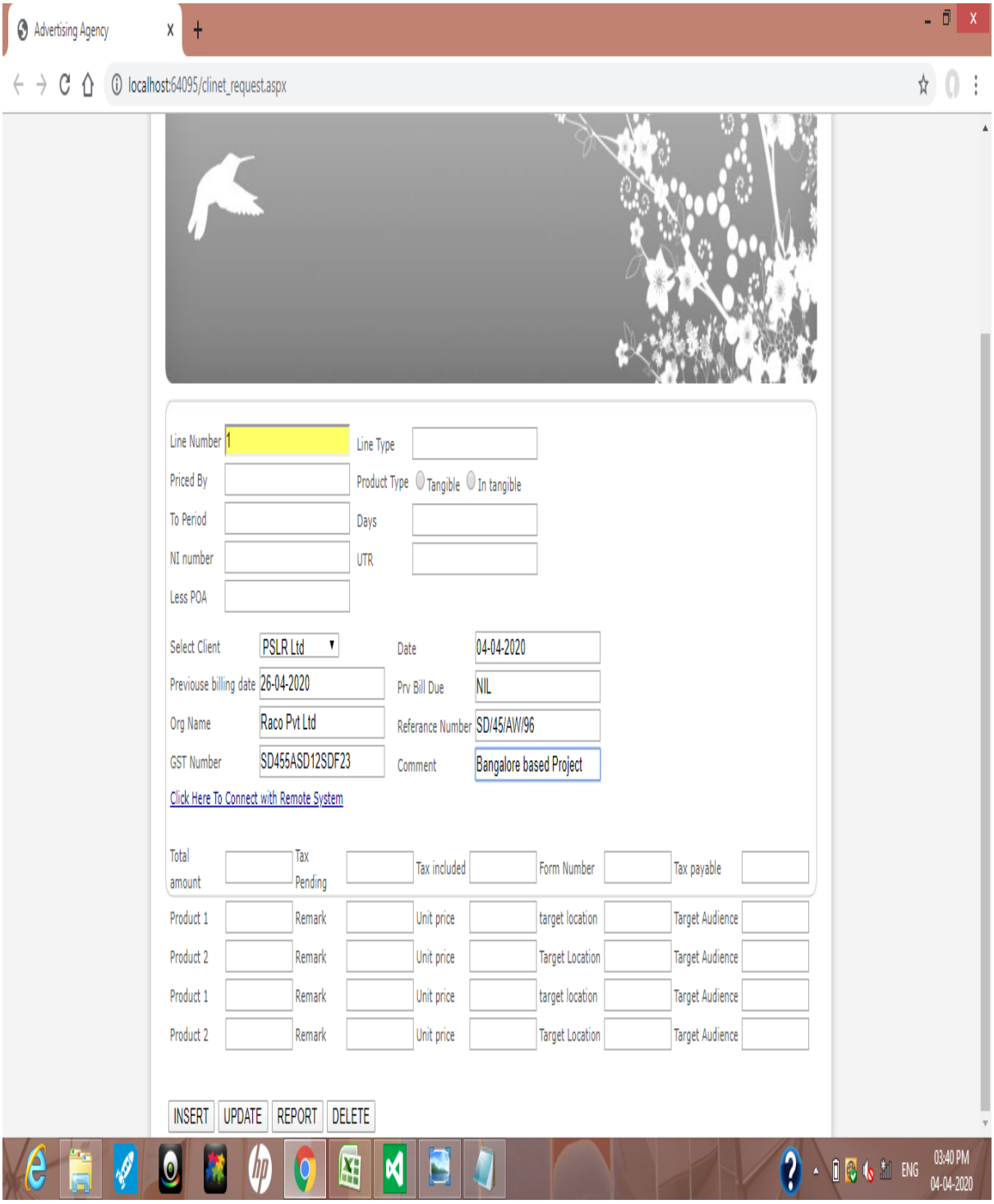


Fig 5: the client related data are fetched from the client machine and put in the create organisation page. These data are from the system or server created and stored from the local server database.

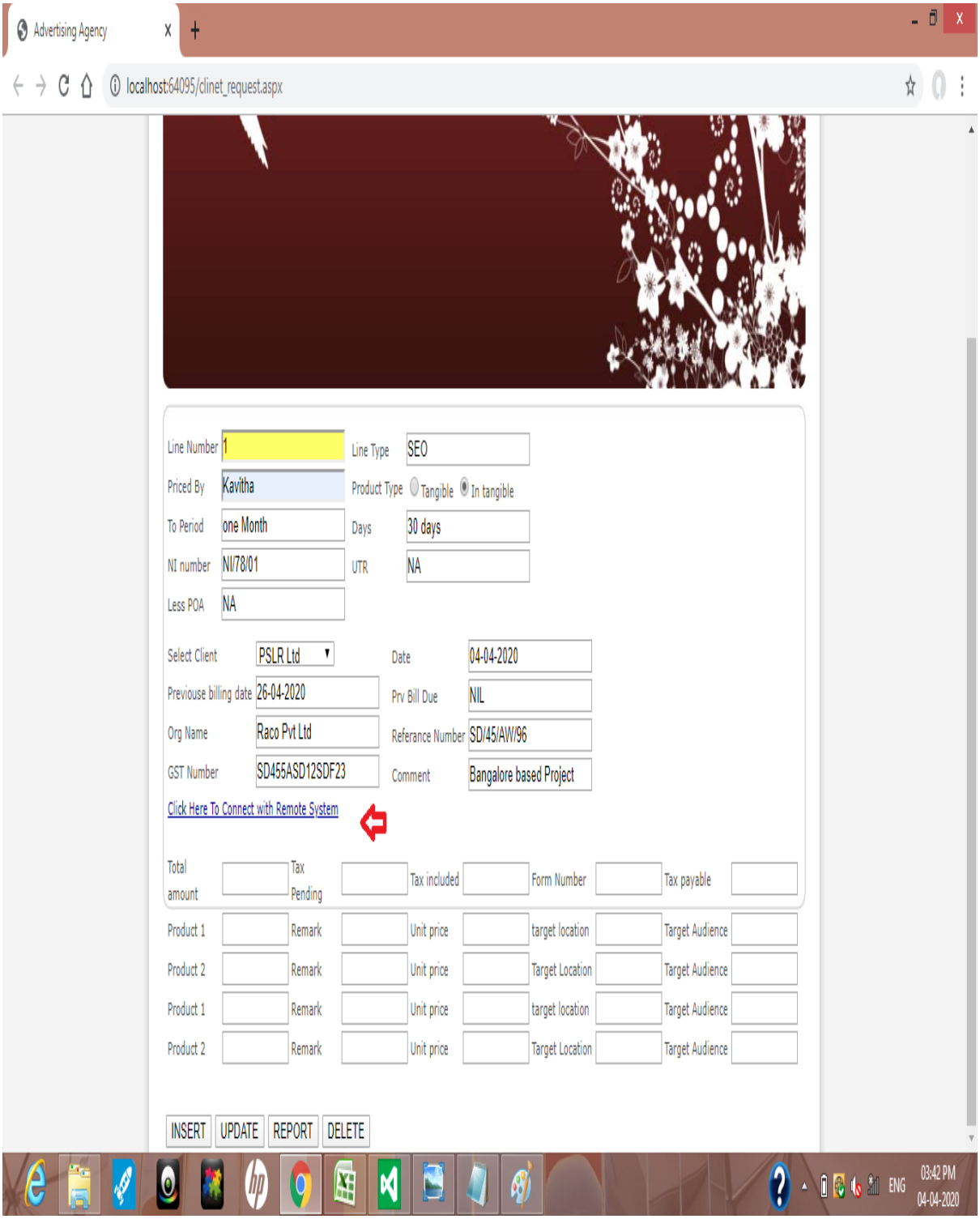


Fig 6: clerk manually enters the line details in the form. And the details from the tax pending form and payable are loaded from remote system with SOA architecture network. The application will check the users authorisation to access the client information and requested to click the link button for connection.

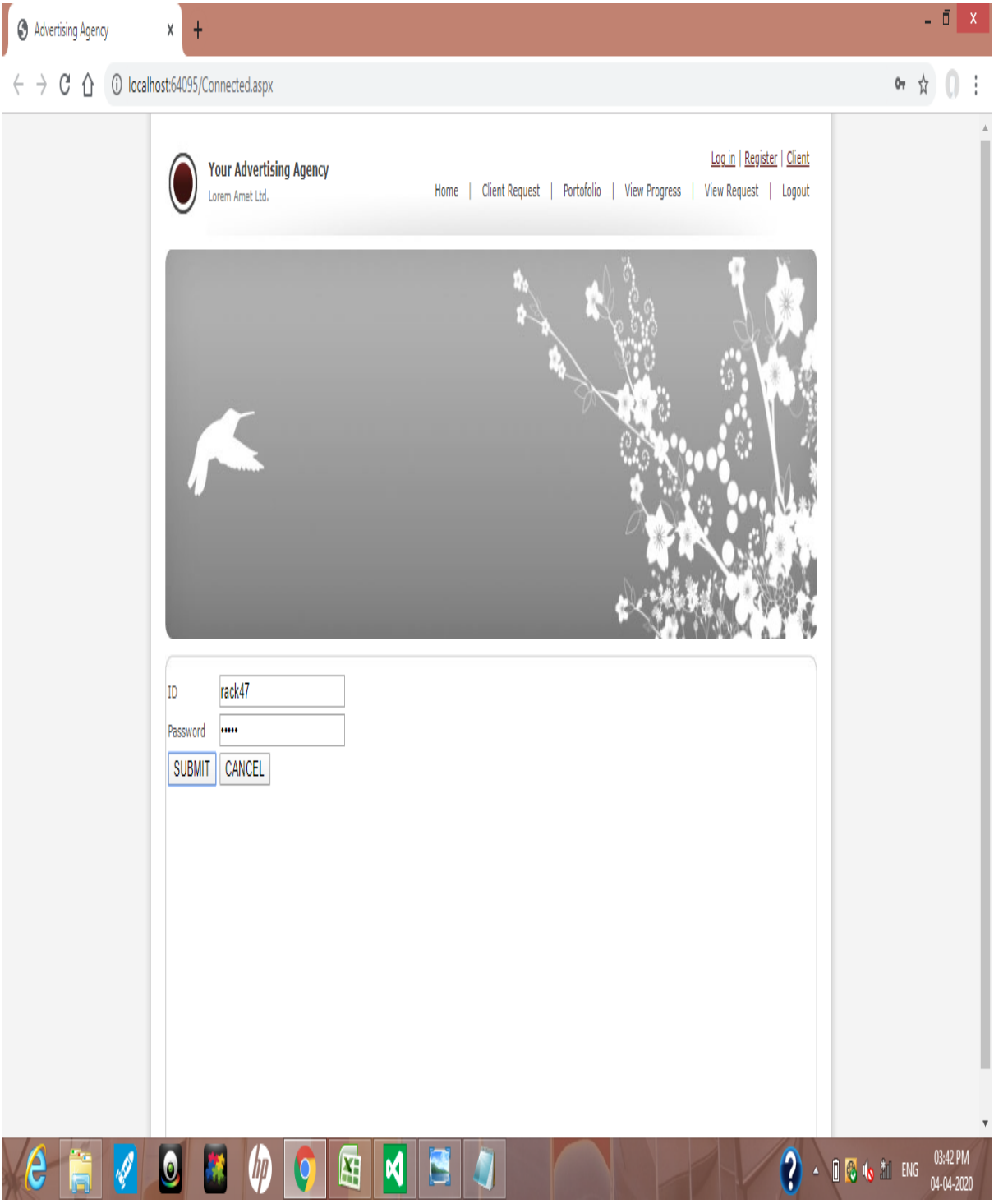


Fig 7: log in page for access the data with SOA architecture.

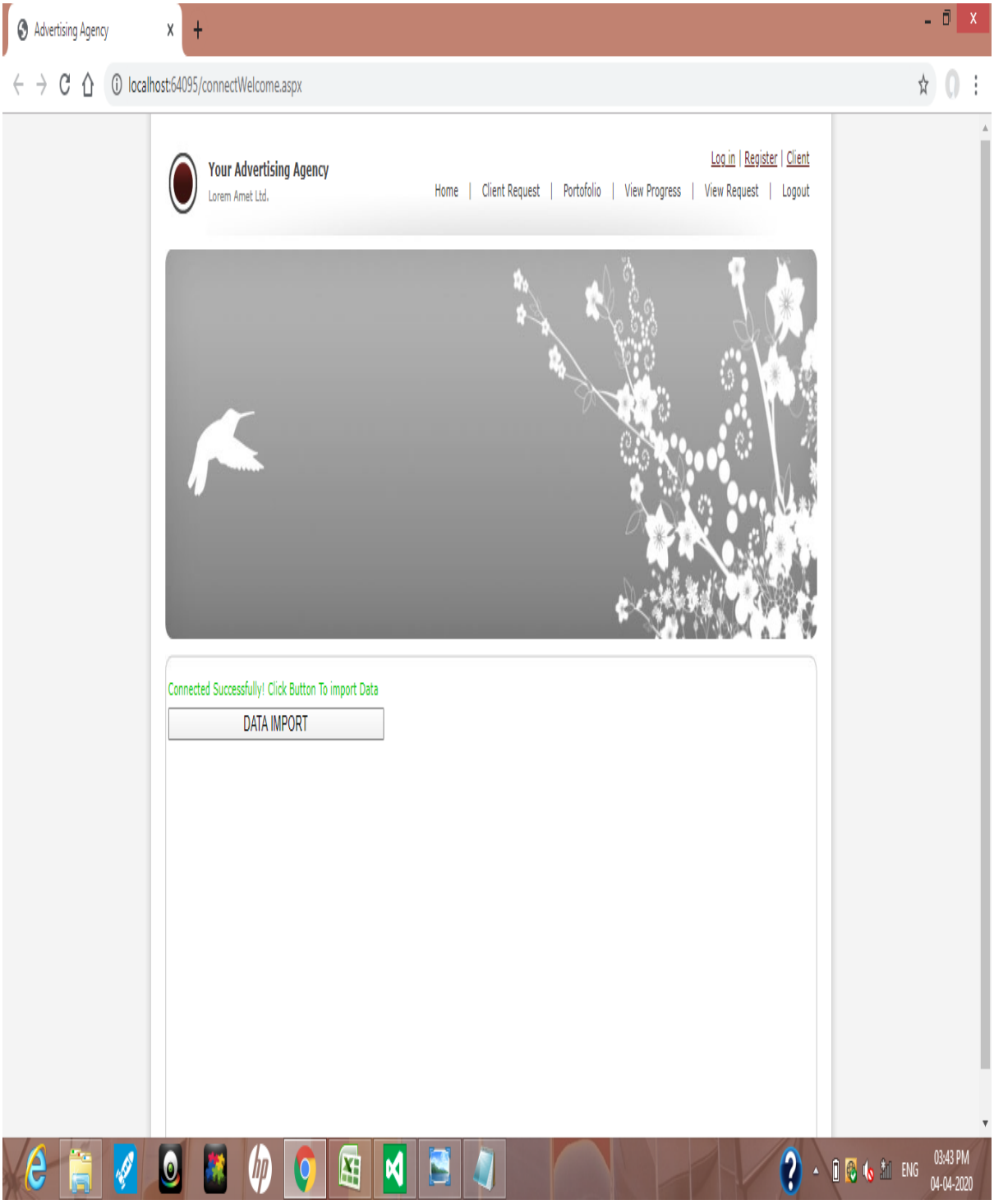


Fig 8: page display the message of connected successfully. When user click the data import button the software will invoke the SOA architecture control for the remote data accessing and the remote system operations will be active.

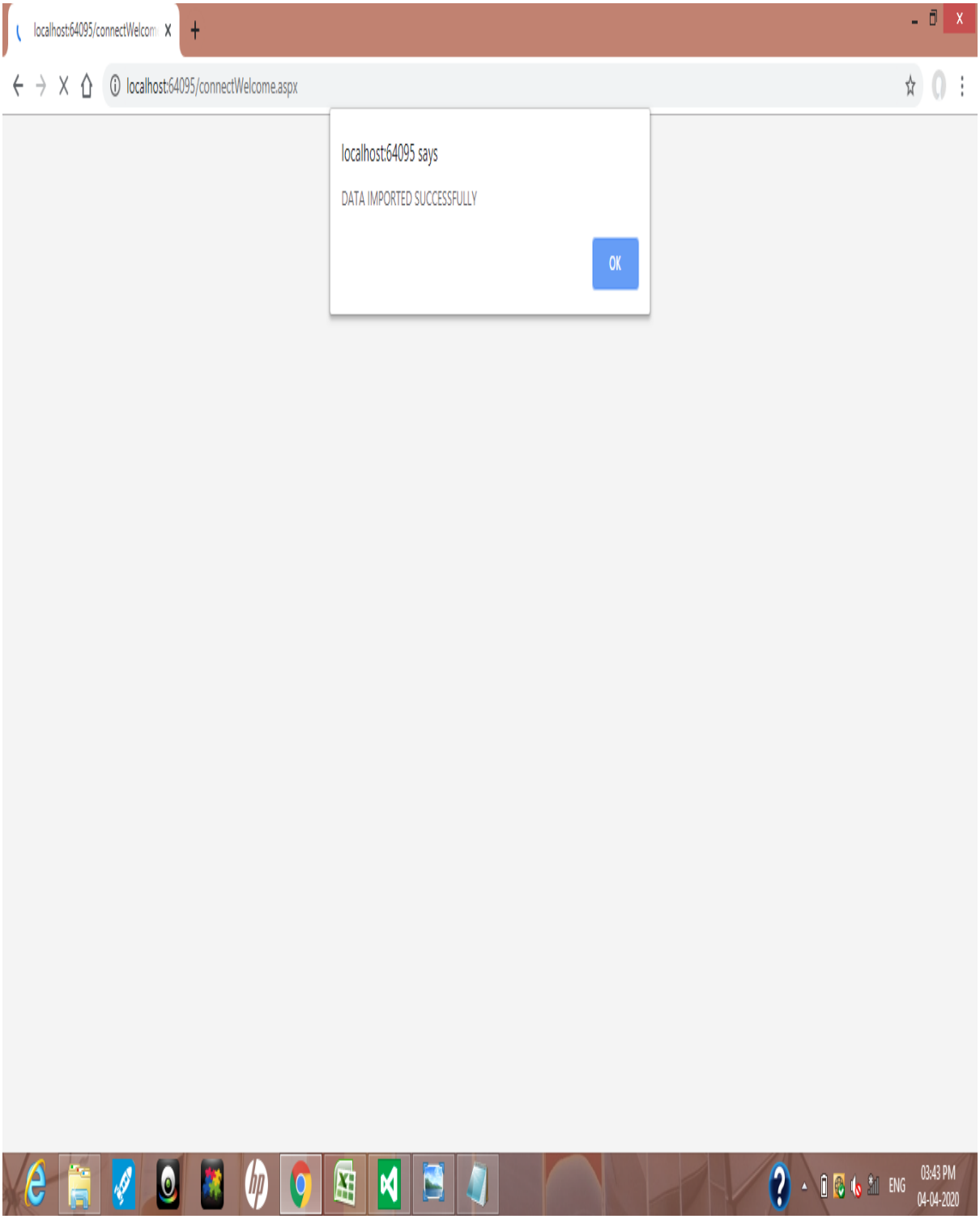


Fig 9: SOA is connected successfully.

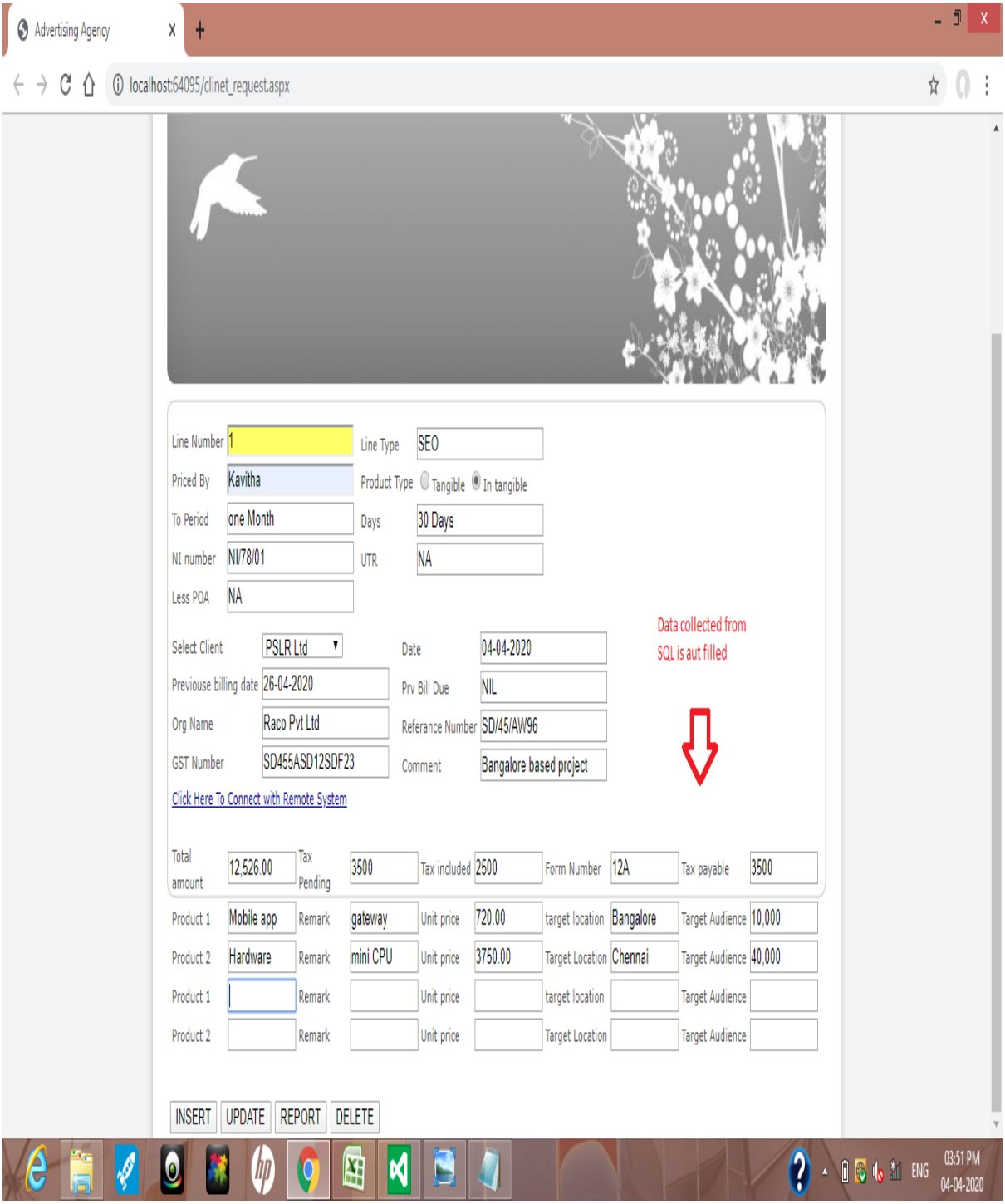


Fig 10: these data are loaded by fetching from the remote client details

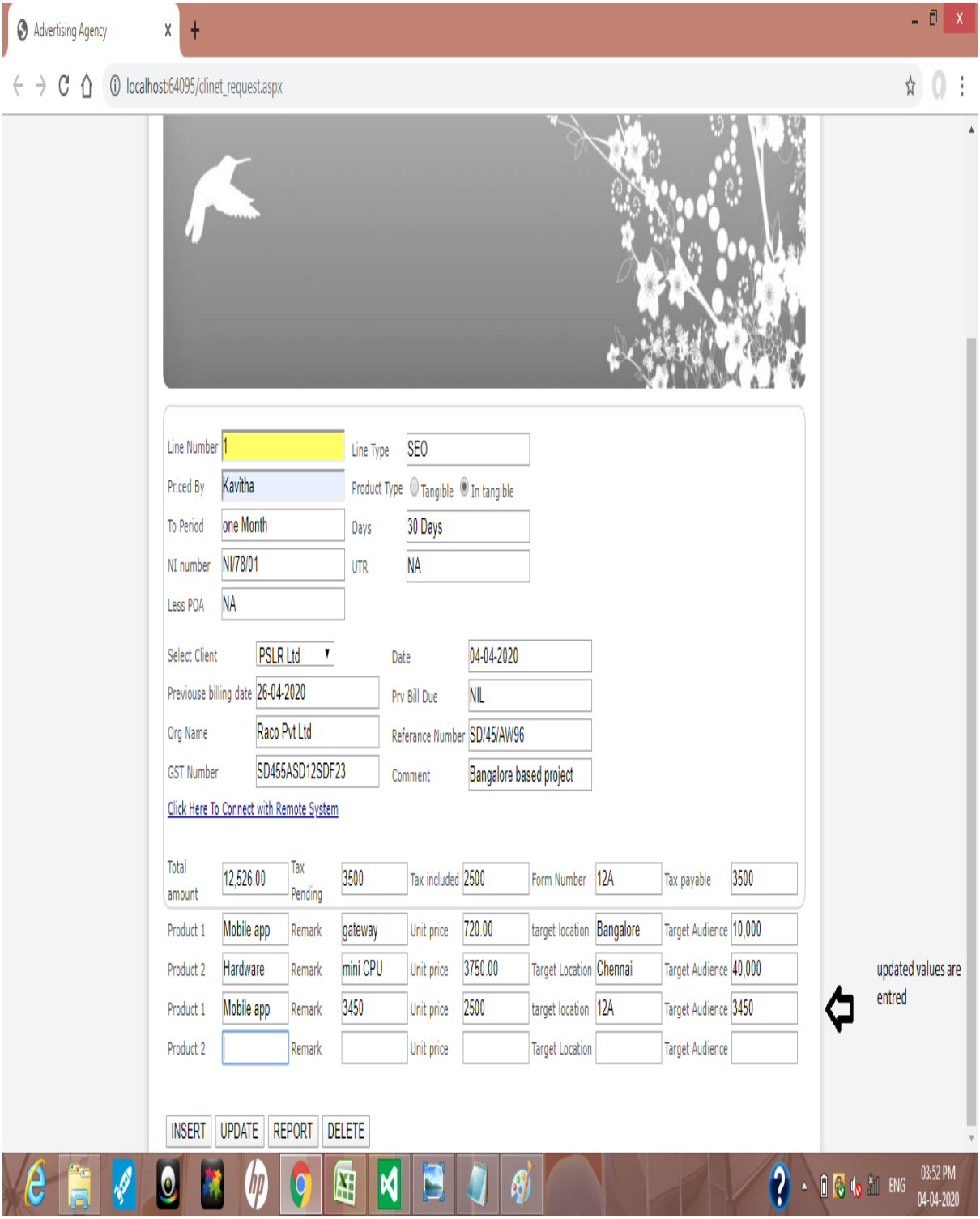


Fig 11: after the data is loaded in the SEO users page the SEO values will be updated and these data will be save in the local machine as well in the remote system of the client too with in SOA protocol algorithm

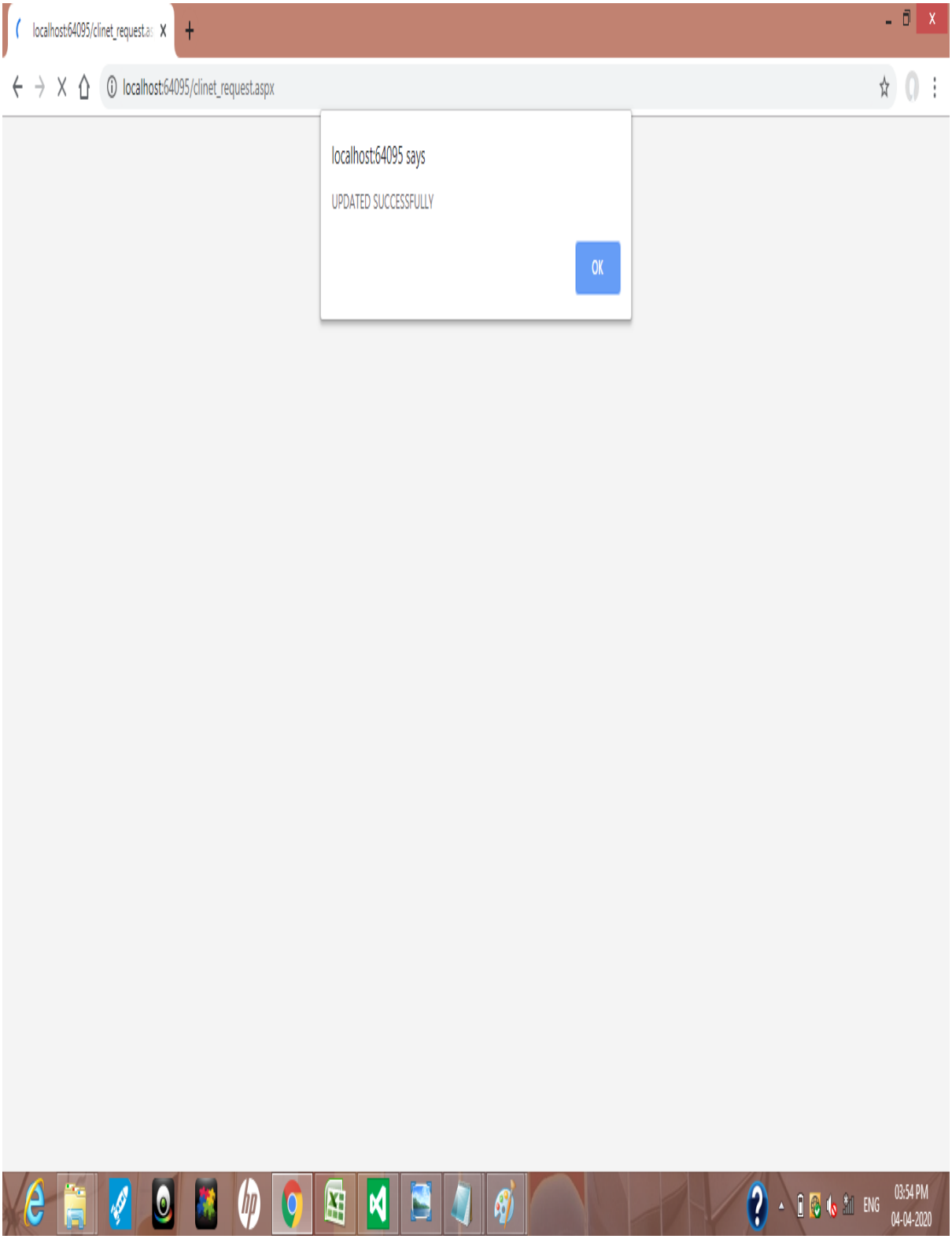


Fig 12: application shows the message that values are uploaded successfully

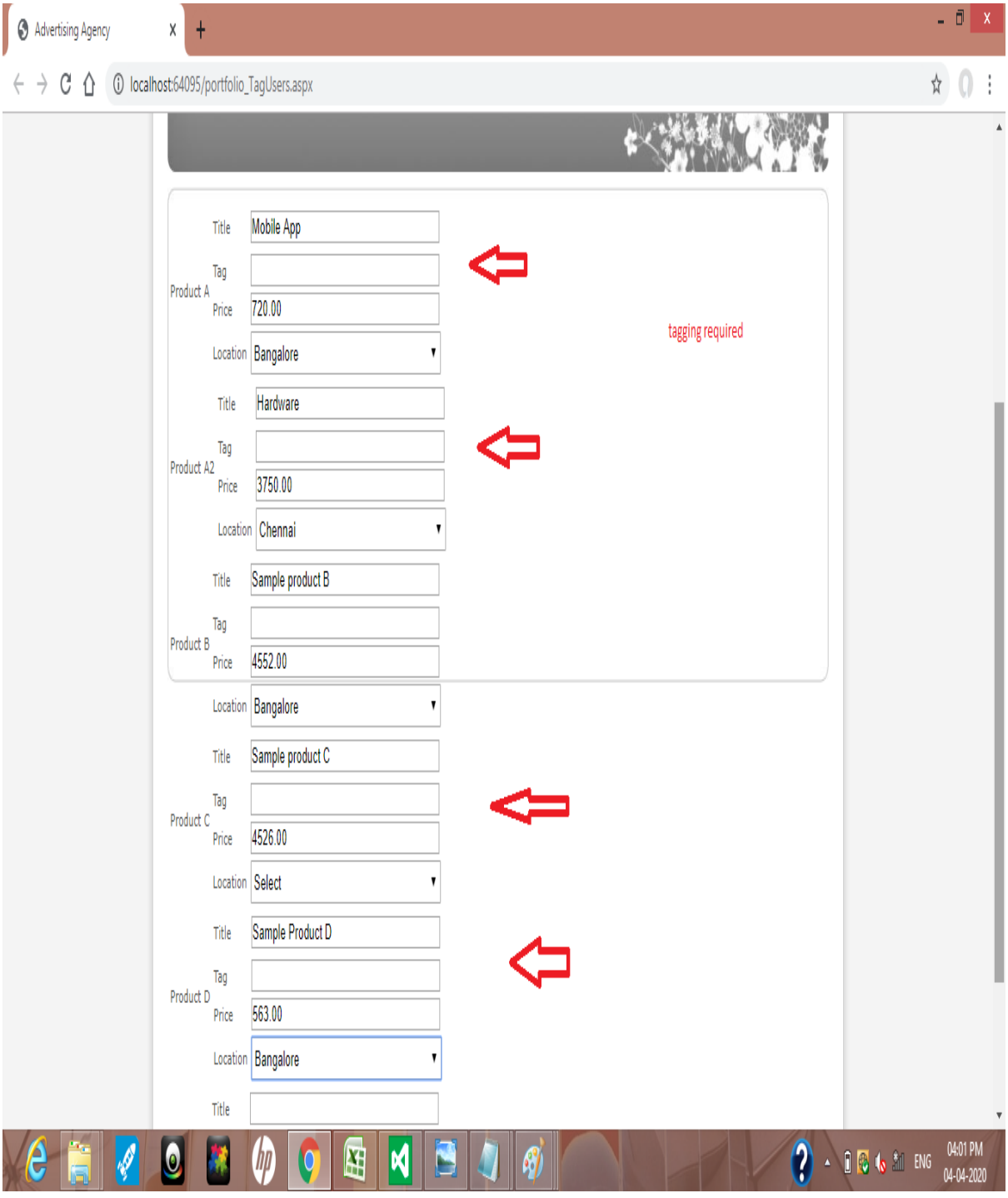


Fig 13: after the user data are created the next work is advert based instruction. The page will be auto loaded with promotion requirement needed for the selected client. And user needed to give instruction over the tag to post the add to Google advert manager or other advert plug in

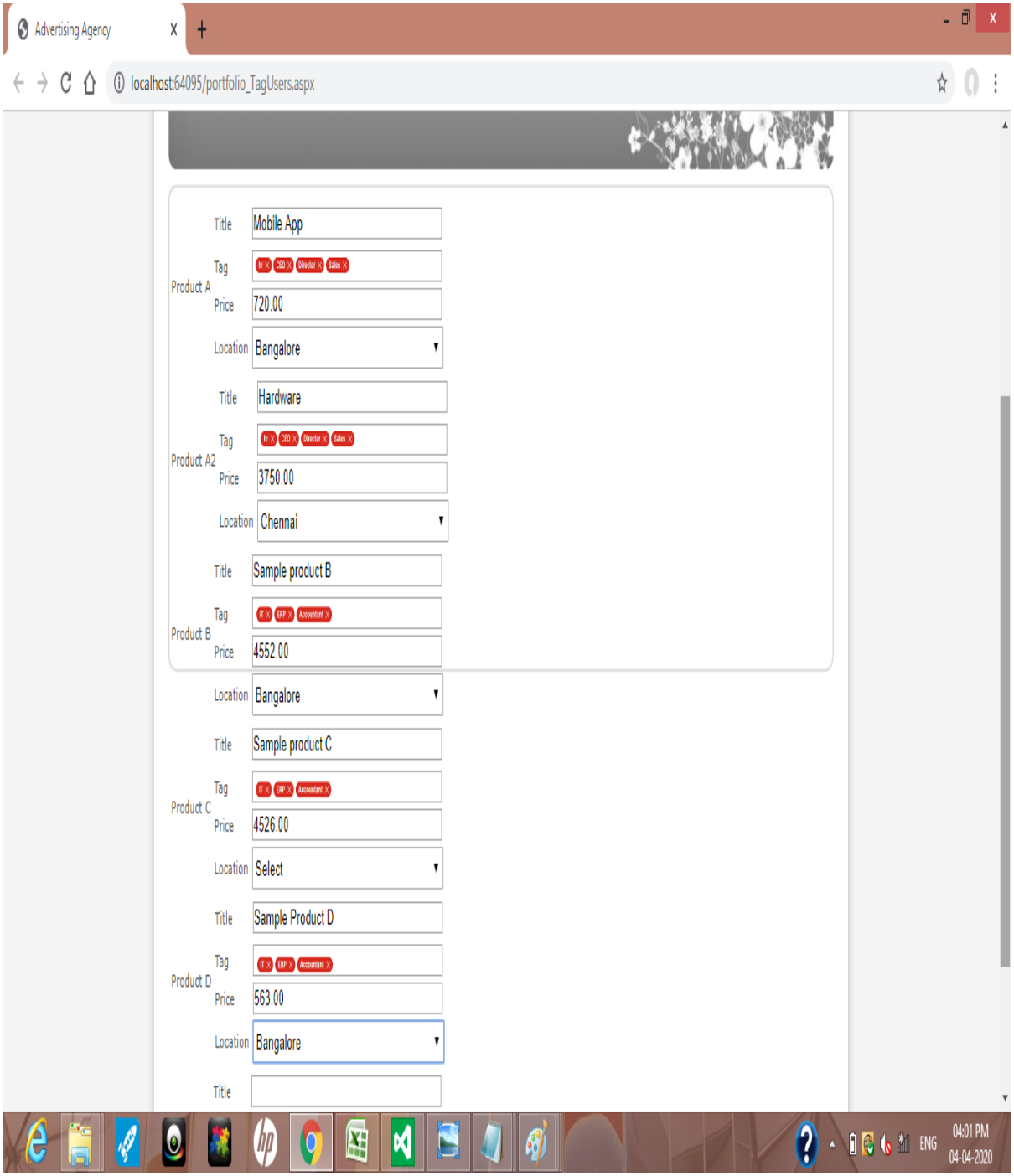


Fig 14: user enter the tag: after the user enters the tag SOA will post the clients advert details to the list of users who are created for the tagged above. The SOA will make the advert portable and error free to host the details of the tag members who uses different configuration system.

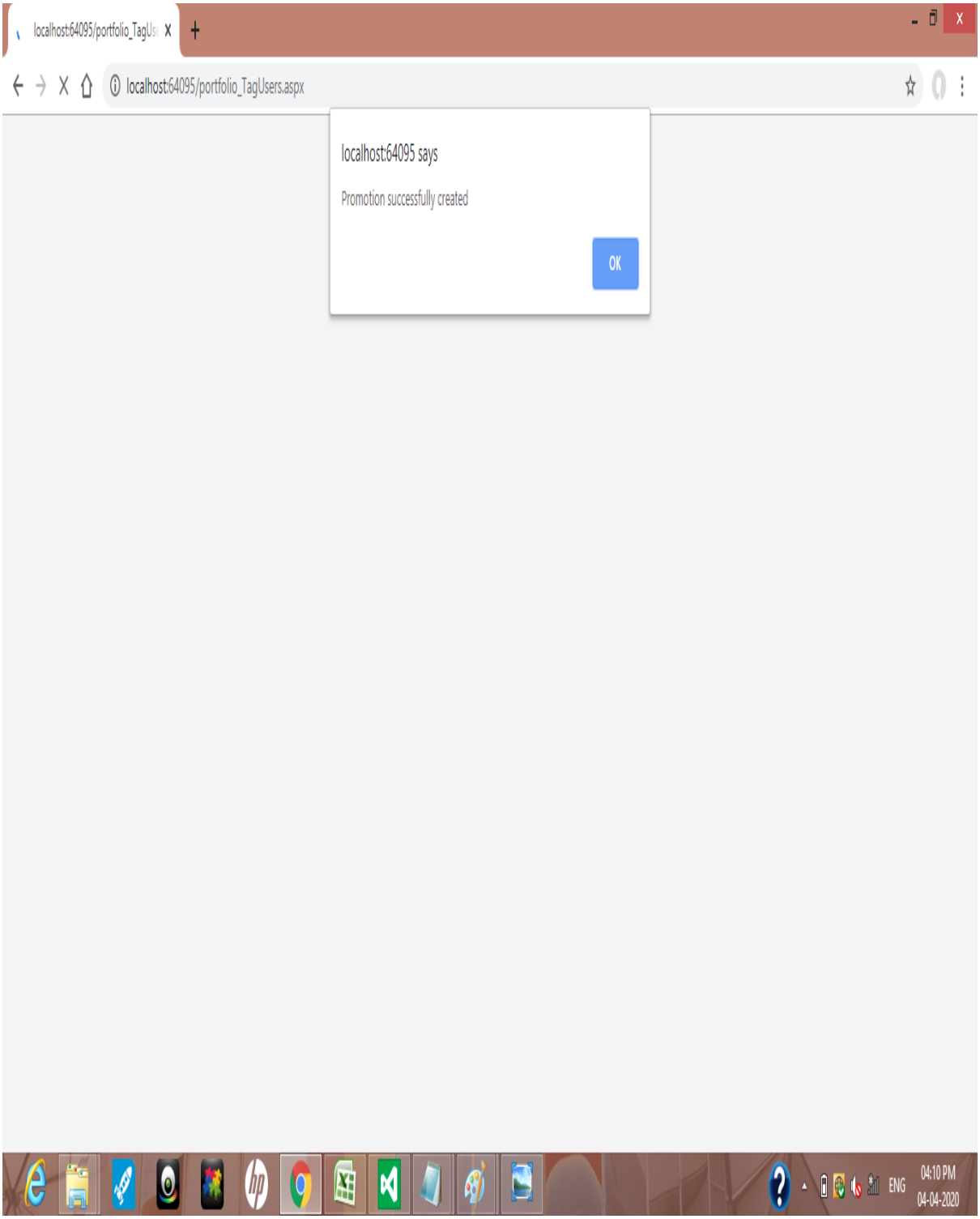


Fig 15: message shows promotion successfully created.

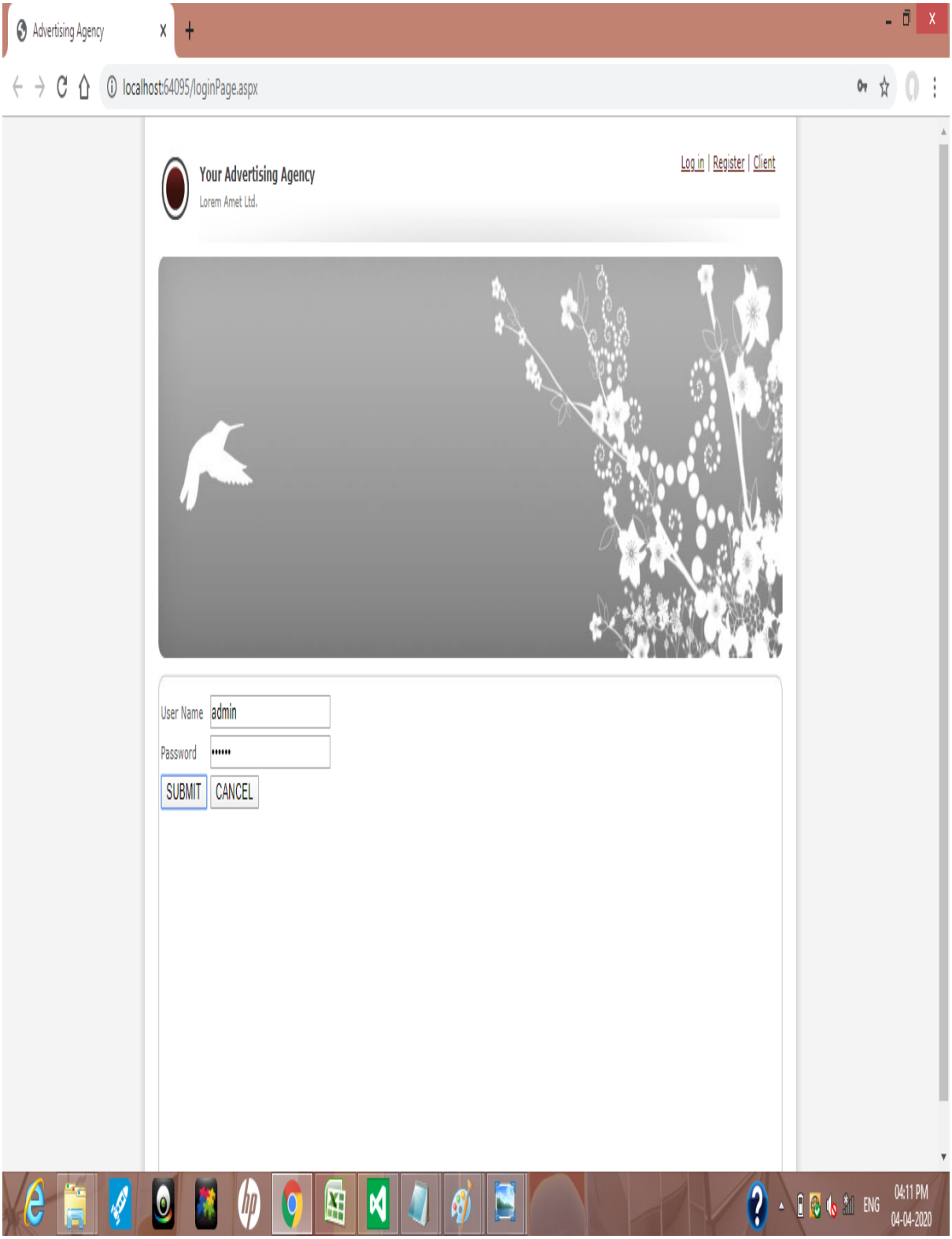


Fig 16: admin ‘s login

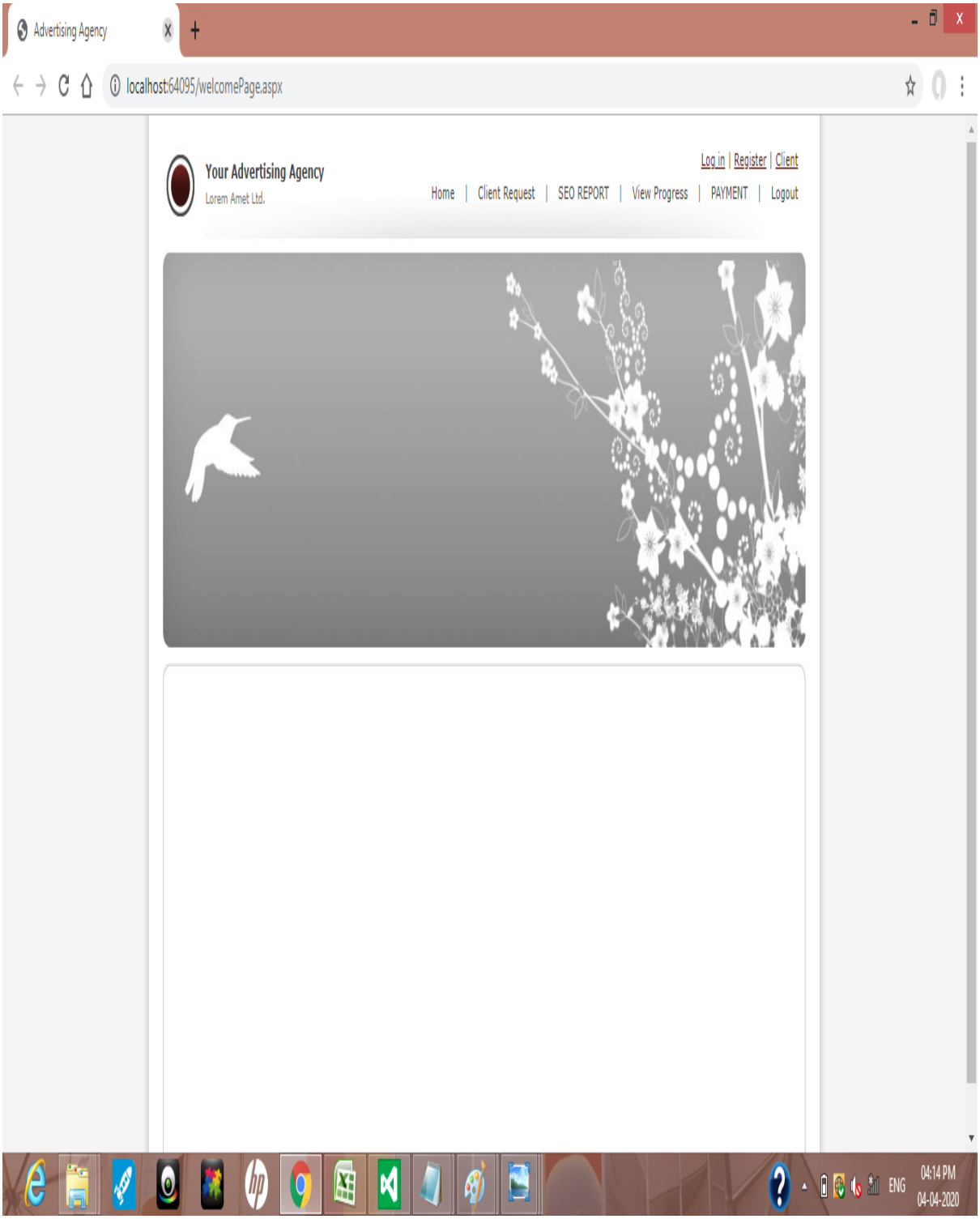


Fig 17: the admin welcome page.

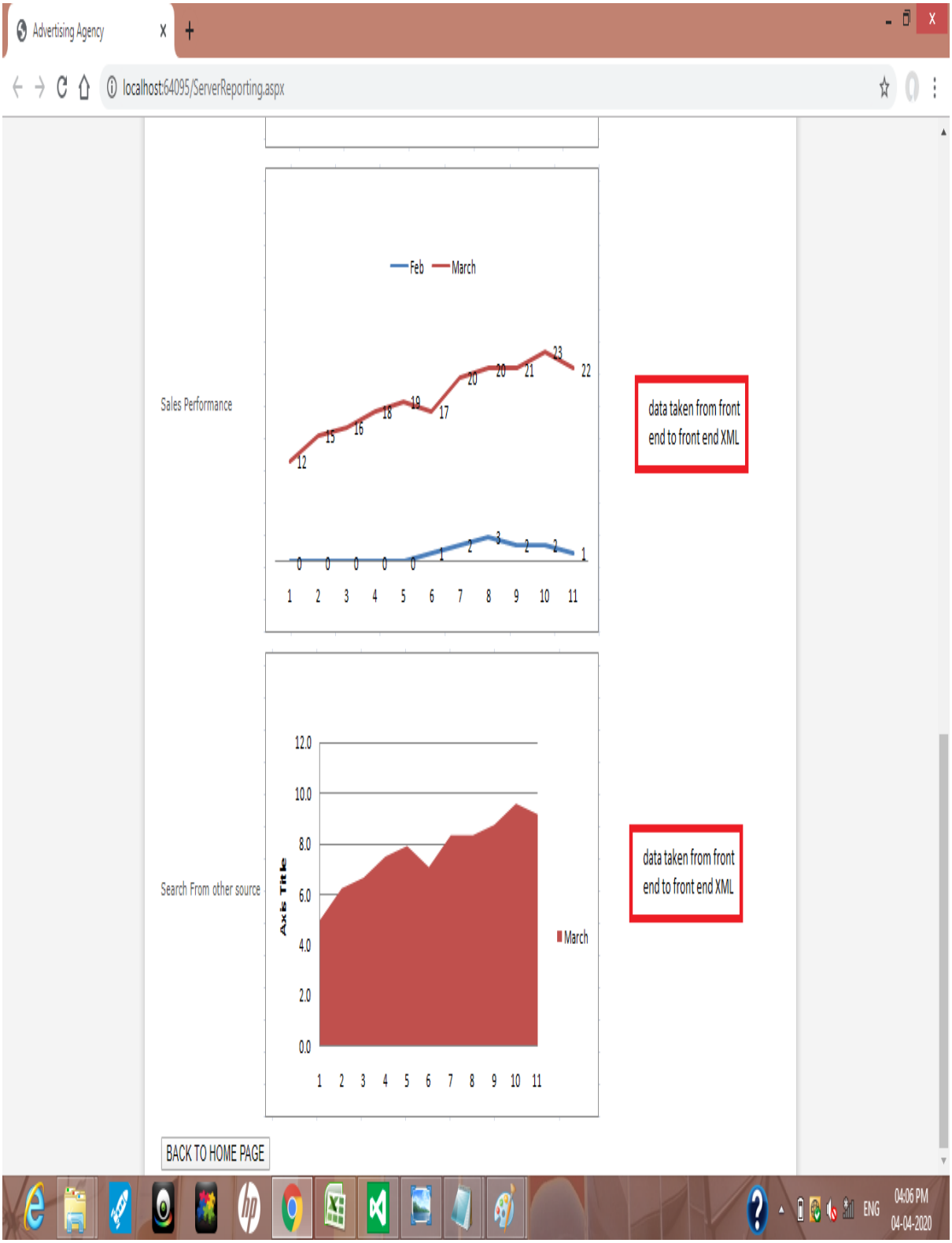


Fig 18: the line chart is generated as the result of targeted audience and their return response. Line chart compare month of Feb and march. The promotion has started in the month of March so its shows total sales went up with SEO activities . the details for sales performance and search from other source , the value are fetched by front end to front end and the values are generated by XML coding and there is not middleware coding used in this chart generation

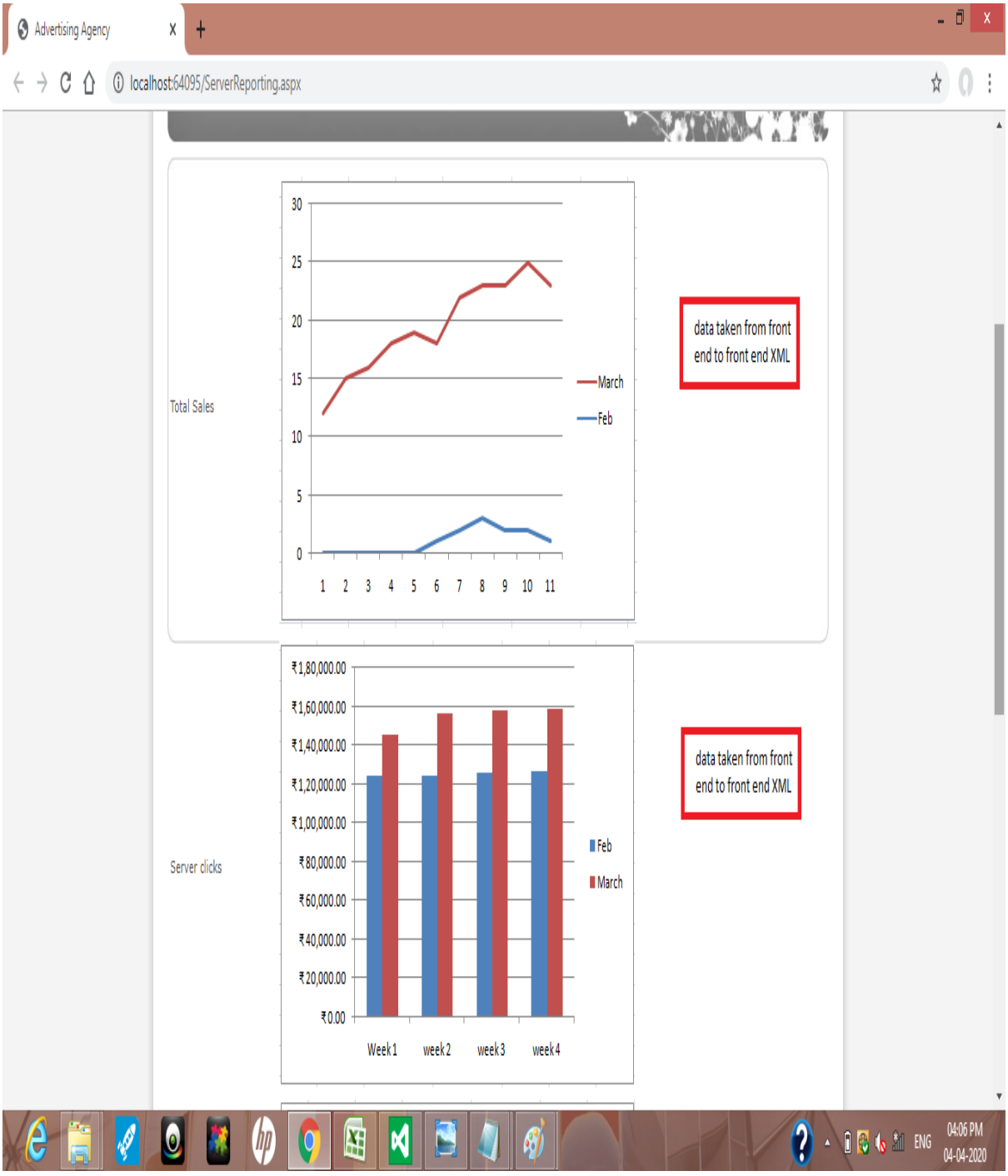


Fig 19: total sale and server clicks. the application contains the chart for total sales and server clicks page and comparison over month of Feb an march. Here the values are fetched from the remote users system by SOA protocol and the values are displayed in the report page.

Chapter 7

SYSTEM TESTING

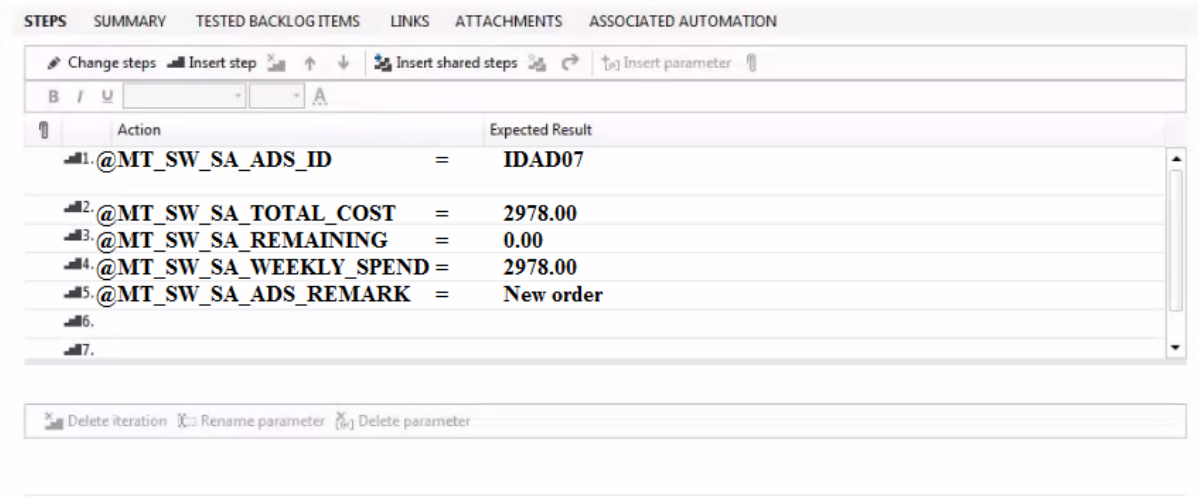
Name of page	**Create ads SOA SEO**
Test page name	**Test create ads for SOA SEO**
Testing units	**1.0**

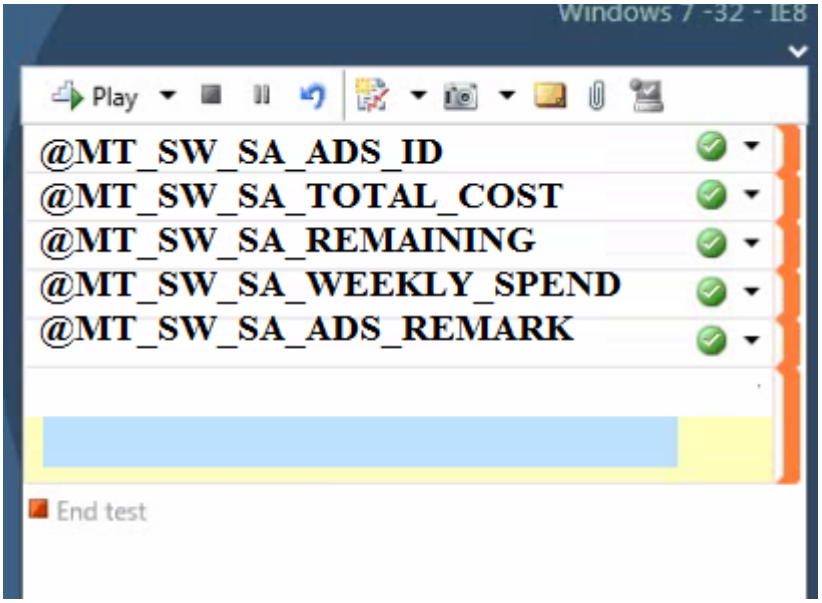
Text box name	**Parameter**	**Values**
TXT_MT_SW_SA_ADS_ID	@MT_SW_SA_ADS_ID	**IDAD07**
TXT_MT_SW_SA_TOTAL_COST	@MT_SW_SA_TOTAL_COST	**2978.00**
TXT_MT_SW_SA_REMAINING	@MT_SW_SA_REMAINING	**0.00**
TXT_MT_SW_SA_WEEKLY_SPEND	@MT_SW_SA_WEEKLY_SPEND	**2978.00**
TXT_MT_SW_SA_ADS_REMARK	@MT_SW_SA_ADS_REMARK	**New order**

Name of page	**Create ads**
Test page name	**Test create ads**
Testing units	**1.1**

Text box name	**Parameter**	**Values**
TXT_MT_SW_SA_ADS_ID	@MT_SW_SA_ADS_ID	**NULL**
TXT_MT_SW_SA_TOTAL_COST	@MT_SW_SA_TOTAL_COST	**NULL**
TXT_MT_SW_SA_REMAINING	@MT_SW_SA_REMAINING	**NULL**
TXT_MT_SW_SA_WEEKLY_SPEND	@MT_SW_SA_WEEKLY_SPEND	**NULL**
TXT_MT_SW_SA_ADS_REMARK	@MT_SW_SA_ADS_REMARK	**NULL**

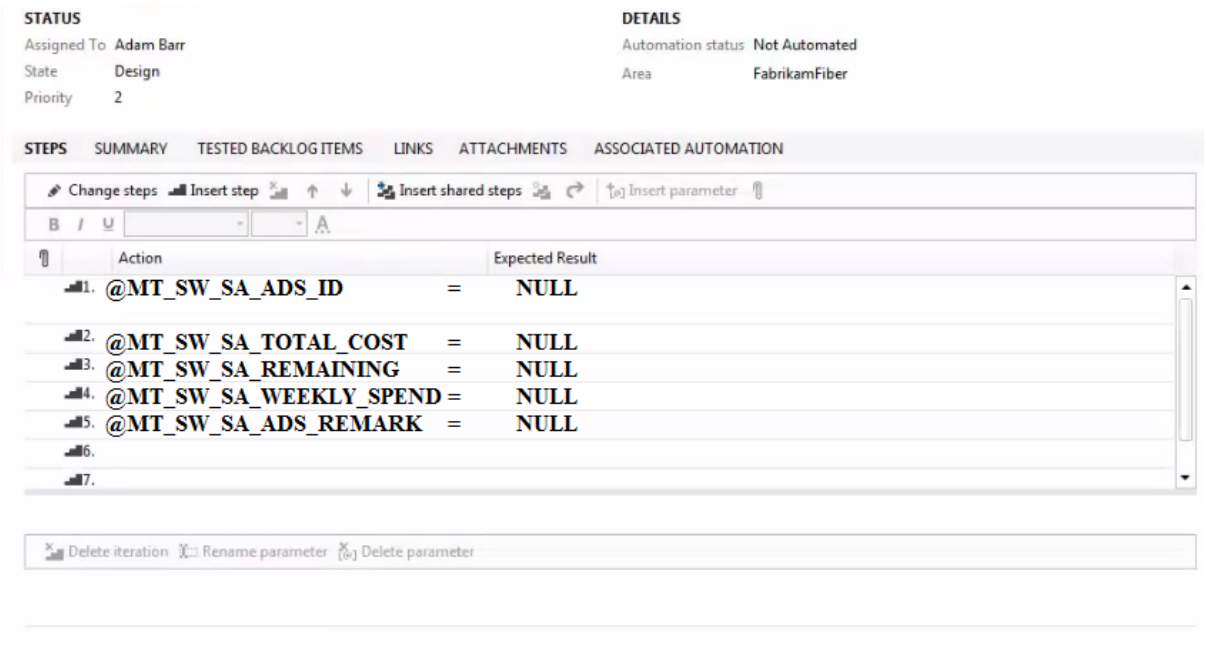
Maintenance

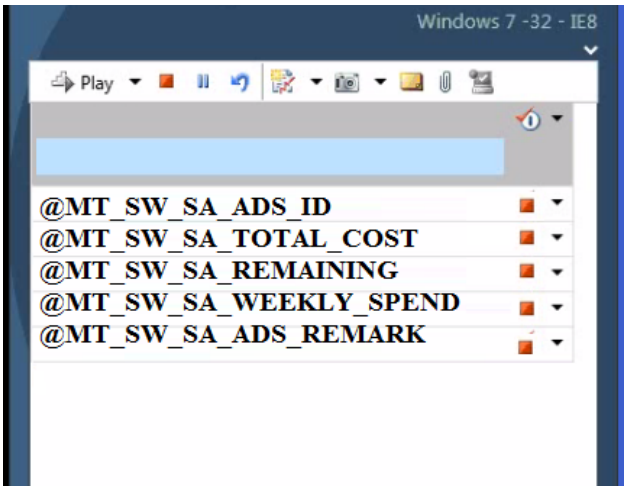




Text box name	**Parameter**	**Testing status**
Test passed for TXT_MT_SW_SA_ADS_ID with value **IDAD01**	@MT_SW_SA_ADS_ID	**Pass**
Test passed for TXT_MT_SW_SA_TOTAL_COST with **1878.00**	@MT_SW_SA_TOTAL_COST	**Pass**
Test passed for TXT_MT_SW_SA_REMAINING with **0.00**	@MT_SW_SA_REMAINING	**Pass**
Test passed for TXT_MT_SW_SA_WEEKLY_SPEND	@MT_SW_SA_WEEKLY_SPEND	**Pass**

with **1878.00**		
Test passed for TXT_MT_SW_SA_ADS_REMARK with **new order**	@MT_SW_SA_ADS_REMARK	**Pass**





Text box name	**Parameter**	**Testing status**
Test failed for TXT_MT_SW_SA_ADS_ID with value **NULL**	@MT_SW_SA_ADS_ID	**Pass**
Test passed for TXT_MT_SW_SA_TOTAL_COST with **NULL**	@MT_SW_SA_TOTAL_COST	**Pass**
Test failed for TXT_MT_SW_SA_REMAINING with **NULL**	@MT_SW_SA_REMAINING	**Pass**
Test failed for TXT_MT_SW_SA_WEEKLY_SPEND with **NULL**	@MT_SW_SA_WEEKLY_SPEND	**Pass**
Test failed for TXT_MT_SW_SA_ADS_REMARK with new order **NULL**	@MT_SW_SA_ADS_REMARK	**Pass**

CHAPTER 8

CONCLUSION

This domain of the SEO is implementing new technology each and every days to improve the searching techniques and the find the right customer. The expansion in the domain of social media and the related E commerce application has opened the possibilities to the SEO world. But the challenge is the area to find the right person who is ready to buy the product from the large group of audience. The algorithm for GLX for finding the users from the search history or using the algorithm for the profile, the VIZHY method for the social media based data integrations are different domain use in the SEO based software technology.

The idea of SOA can reduce the complexity of the software integration and make the operations of GLX or VIZHY based searching technique for easy and convent for the SEO executives.

CHAPTER 9

FUTURE ENHANCEMENT

The study over the market requirement and product analysis algorithm implementation in the SEO is the future enhancement. There are many arithmetical formulae like product collection ratio, the SEO frequency ratio etc which is used to analysis the users purchase capacity and the area of the interest. This software will be generated with line and pie chart representation of the product and an user who are interested to buy the item. This software algorithm is traditionally used by the business analyst or data architecture experts to analyse the organisation sales and also to predict the future of the income generated with the improvement made in the business plan. So in the future enhancement these software integration can be implemented with software of SEO and utilise the security and enhance feature of SOA protocol to improve the E business domain.