A Database Mini Project Report

on

INSURANCE MANAGEMENT

Submitted to the

Savitribai Phule Pune University

In partial fulfillment for the award of the Degree of

Bachelor of Engineering

in

Information Technology

by

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2019-2020

CERTIFICATE

This is to certify that the mini project report entitled **"Insurance Management System"** being submitted by **ABHISHEK BORWANKAR, KAPIL AGRAWAL, ANSHUL BAKSHI, BHARAT KOTHARI** is a record of bonafide work carried out by him/her under the supervision and guidance of Dr.Emmanuel M in partial fulfillment of the requirement for **TE (Information Technology Engineering) – 2015 course** of Savitribai Phule Pune University, Pune in the academic year 2019-2020.

Date: 15/10/2019

Place: Pune

Guide Subject Coordinator Head of the Department

Principal

This Mini Project report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at Pune Institute of Computer Technology, Pune – 411043 on . . . . . .

Internal Examiner External Examiner

ACKNOWLEDGEMENT

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I am highly indebted to (all the professors of IT department) for their guidance and constant supervision as well as for providing necessary information regarding the project & also for their support in completing the project.
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(Students Name & Signature)

CONTENTS

1.Abstract

Insurance management system project is implemented in java platform using mysql as database application. Main aim of this project is to develop an online application for insurance company to atomize work procedure. Using this system, agents and policy holders can know details about present policies, schemes, policy specifications, terms and conditions on policy, policy registration by the customers. Agents commission is based upon customer policy registration. In existing system manual procedure is followed where records are used to maintain data which is a time taking process and require more man power and calculating commissions dues .etc are done manually. In our project system there is no need of human interference in calculating any details. Total work is done using management system which will save time and less paper work and even human resource.

2. Introduction

Our project for Insurance Management allows three kinds of users: admin, agent, and clients. All kinds of users can login and different users are allowed different types of operations. Clients can login to view their current policies, their transaction details and also file claim for existing policy. Agents can login to view details about their clients, policies. They can register new clients and also sell policies to existing clients. Agents are also responsible for making transaction for policies. Admin's responsibilities include adding new agent, adding new plan and also to accept or deny claims filed for policies.

3.Overview

This report discusses the result of the work done in development of "Insurance Management System "on "JSP" Front-end Platform and "MySQL" as back-end Platform.
At the development of an application JSP provides a good connecting facility between all pages, also the back-end MySQL is most important to save all the data related the application.

4.Background and Motivation

The definition of our problem lies in manual system and a fully automated system.

Manual system: The system is very time consuming and lazy. This system is more prone to errors and sometimes the approaches to various problems are unstructured.

Technical system: We have provided an apt solution to manage database for Insurance Management with using mysql and jsp. With the advent of latest technology if we do not update our system then our business results in losses gradually with time. The technical systems contains the tools of latest trend that is, database and Internet etc. The systems with this technology are very fast, accurate, user-friendly and reliable.

5. Objective

Need of Insurance Management Application

1) Convenience
2) Easy use for customer's and agent's satisfaction
3) Less Confusion
4) Easy Communication between agents and customers
5) Time Saving
6)Less chance of human error
7)Centralized database for quick data retreival

6. Methodology

To implement the above goals, the following methodology needs to be followed:

1. Specifying the Application and various components of the Architecture.
2. Specifying the bindings between the tasks and the resources either manually or by the design
Tools.
3. Specifying the port interconnections between the resources.

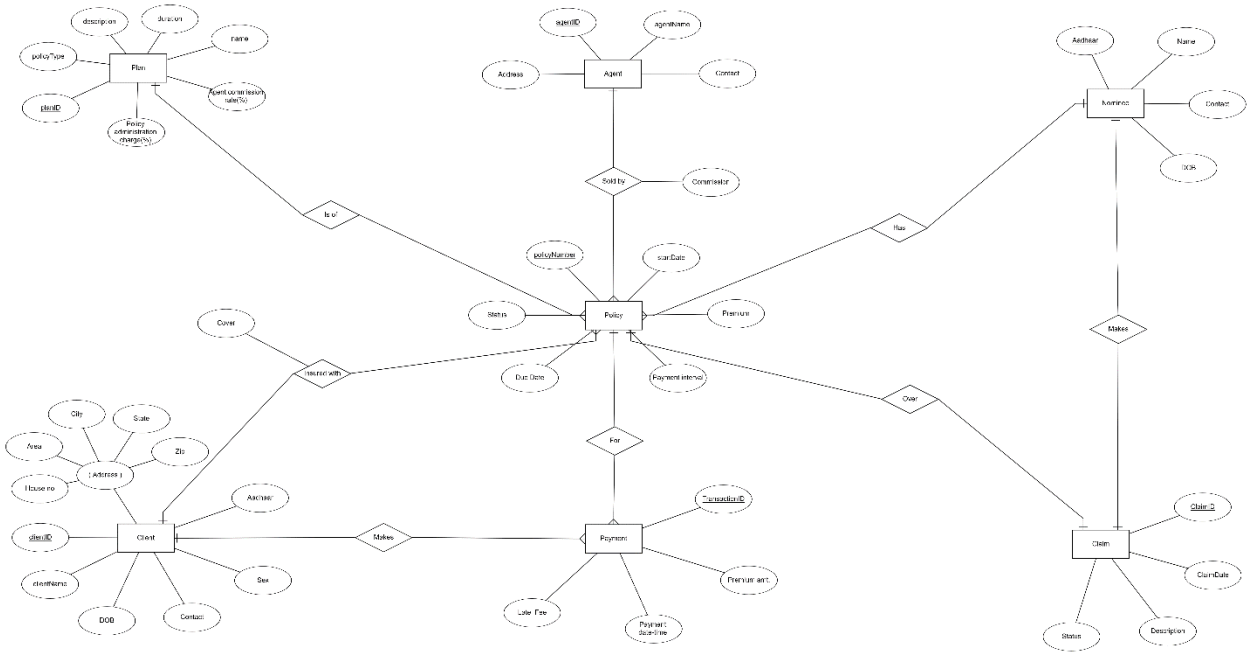
7.Scope Of Project

The scope of the project is to provide the perfect platform to work on for customers and agents involving in the insurance industry .Simplified user interaction helps customers by giving an insight about the plans .Agents get benefited by the simple method used for adding new customers ,assigning their customer with an insurance plan and also by easy calculation of commissions.

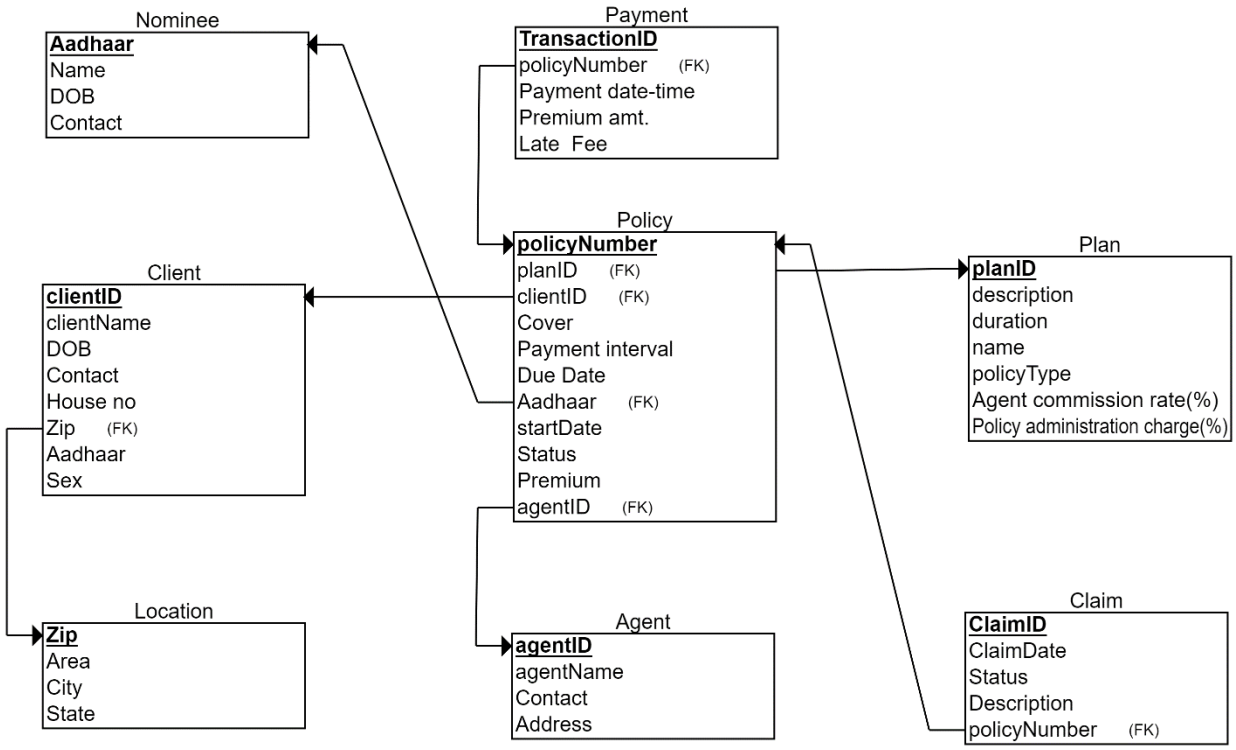
8.Requirements

We are going to perform the project on windows or linux platform so we need the os as windows/linux .Any version of windows and linux works .The system should have minimum ram of 256MB as well as minimum storage capacity of 15GB.The system should contain the server software named as “Tomcat-apache” of version 8.5.And mysql of version 3.0 or above .First we have to install both software and we have to do connectivity between them.

9.E-R Diagram


description
Duration
name
policyType
planID
Agent commission rate(%)
Policy administration charges(%)
Plan
agentID
agentName
Address
Agent
Contact
Aadhaar
Name
Nominee
Contact
DOB
Sold by
Commission
Is of
policyNumber
startDate
Status
Policy
Premium
Has
Makes
Cover
Insured with
Due Date
Payment interval
Over
For
City
State
Area
Zip
Address
House no
Aadhaar
clientID
Client
Makes
Payment
transactionID
Claim ID
Claim
clientName
Sex
DOB
Contact
Late Fee
Payment date/time
Premium amt
ClaimDate
Status
Description

10.Schema Diagram



11. RELATIONAL DATA BASE DESIGN

1]agent:-

agentID,agentName,contact,address,password.

agentID	agentName	contact	address	password

2] claim:-

claimID,policyNumber,claimDate,status,description

claimID	policyNumber	claimDate	status	Description

3] client:-

ClientID,clientName,dob,sex,contact,aadhar,houseNo,zip,password

ClientID	clientName	dob	sex	contact	aadhar	houseNo	zip	Password

4] location:-

area,city,state,zip

Area	city	State	Zip

5] nominee:-

nomineeName,aadhaar,contact,dob

nomineeName	aadhaar	Contact	dob

6]payment:-

transID,policyNumber,payDate,lateFee

transID	policyNumber	payDate	lateFee

7]plans:-

planID,planName,duration,description,policyType,comRate,adminCharge

planID	planName	duration	description	policyType	comRate	adminCharge

8]policy:-

policyNumber,ClientID,planID,cover,nomineeID,premium,dueDate,payment_interval,startDate,agentID,commission,status

policyNumber	ClientID	planID	cover	nomineeID	premium
dueDate	Payment_interval	startDate	agentID	commission	status

12. Database Normalization:

First Normal Form:-

A relation is in first normal form if and only if each attribute contains only atomic values. All relations in database are already in First Normal Form.

1]agent:-

agentID,agentName,contact,address,password.

agentID	agentName	contact	address	password

2] claim:-

claimID,policyNumber,claimDate,status,description

claimID	policyNumber	claimDate	status	Description

3] client:-

ClientID,clientName,dob,sex,contact,aadhar,houseNo,zip,password

ClientID	clientName	dob	sex	contact	aadhar	houseNo	zip	Password

4] location:-

area,city,state,zip

Area	city	State	Zip

5] nominee:-

nomineeName,aadhaar,contact,dob

nomineeName	aadhaar	Contact	dob

6]payment:-

transID,policyNumber,payDate,lateFee

transID	policyNumber	payDate	lateFee

7]plans:-

planID,planName,duration,description,policyType,comRate,adminCharge

planID	planName	duration	description	policyType	comRate	adminCharge

8]policy:-

policyNumber,ClientID,planID,cover,nomineeID,premium,dueDate,payment_interval,startDate,agentID,commission,status

policyNumber	ClientID	planID	cover	nomineeID	premium
dueDate	Payment_interval	startDate	agentID	commission	status

Second Normal Form

A relation is said to be in second normal form if it is already in first normal form and it has no partial dependency. Absence of any partial dependency makes the database already in second normal form.

Tables:-

1]agent:-

agentID,agentName,contact,address,password.

agentID	agentName	Contact	address	password

2] claim:-

claimID,policyNumber,claimDate,status,description

claimID	policyNumber	claimDate	status	Description

3] client:-

ClientID,clientName,dob,sex,contact,aadhar,houseNo,zip,password

ClientID	clientName	dob	sex	contact	aadhar	houseNo	zip	Password

4] location:-

area,city,state,zip

Area	city	State	Zip

5] nominee:-

nomineeName,aadhaar,contact,dob

nomineeName	aadhaar	Contact	dob

6]payment:-

transID,policyNumber,payDate,lateFee

transID	policyNumber	payDate	lateFee

7]**plans:-**

planID,planName,duration,description,policyType,comRate,adminCharge

planID	planName	duration	description	policyType	comRate	adminCharge

8]policy:-

policyNumber,ClientID,planID,cover,nomineeID,premium,dueDate,payment_interval,startDate,agentID,commission,status

policyNumber	ClientID	planID	cover	nomineeID	premium
dueDate	Payment_interval	startDate	agentID	commission	status

Third Normal Form

A relation is said to be in third normal form if it is already in 1st and 2nd NF and has no transitive dependency. There existed transitive dependency in client table. Address values area, city, state depend on zipcode and zipcode depends on candidate key ClientID. So, client table is broken into location table and client table.

Tables:-

1]agent:-

agentID,agentName,contact,address,password.

agentID	agentName	Contact	address	password

2] claim:-

claimID,policyNumber,claimDate,status,description

claimID	policyNumber	claimDate	status	Description

3] client:-

ClientID,clientName,dob,sex,contact,aadhar,houseNo,zip,password

ClientID	clientName	dob	sex	contact	aadhar	houseNo	zip	Password

4] location:-

area,city,state,zip

Area	city	State	Zip

5] nominee:-

nomineeName,aadhaar,contact,dob

nomineeName	aadhaar	Contact	dob

6]payment:-

transID,policyNumber,payDate,lateFee

transID	policyNumber	payDate	lateFee

7]**plans:-**

planID,planName,duration,description,policyType,comRate,adminCharge

planID	planName	duration	description	policyType	comRate	adminCharge

8]policy:-

policyNumber,ClientID,planID,cover,nomineeID,premium,dueDate,payment_interval,startDate,agentID,commission,status

policyNumber	ClientID	planID	cover	nomineeID	premium
dueDate	Payment_interval	startDate	agentID	commission	status

13.Graphical User Interface

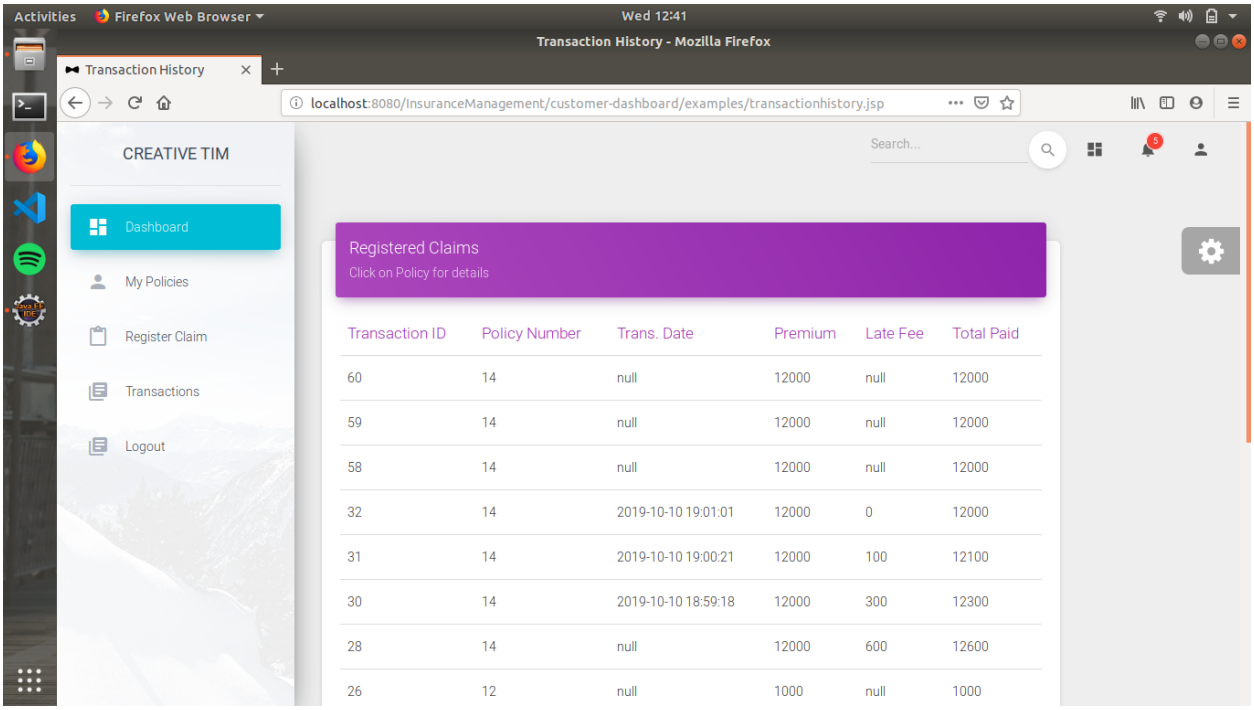
The application is very user friendly and uses a GUI interface implemented in CSS,HTML,JAVASCRIPT and BOOTSTRAP to Communicate with the user. Various features are self – explanatory. Forms are easy to fill in and components can be added, removed and updated very easily. The application includes tips to give a brief description of the particular input Field.
A navigation bar is used to display all the options and it and it is made so user friendly that it helps the customer,agent with any queries they have.

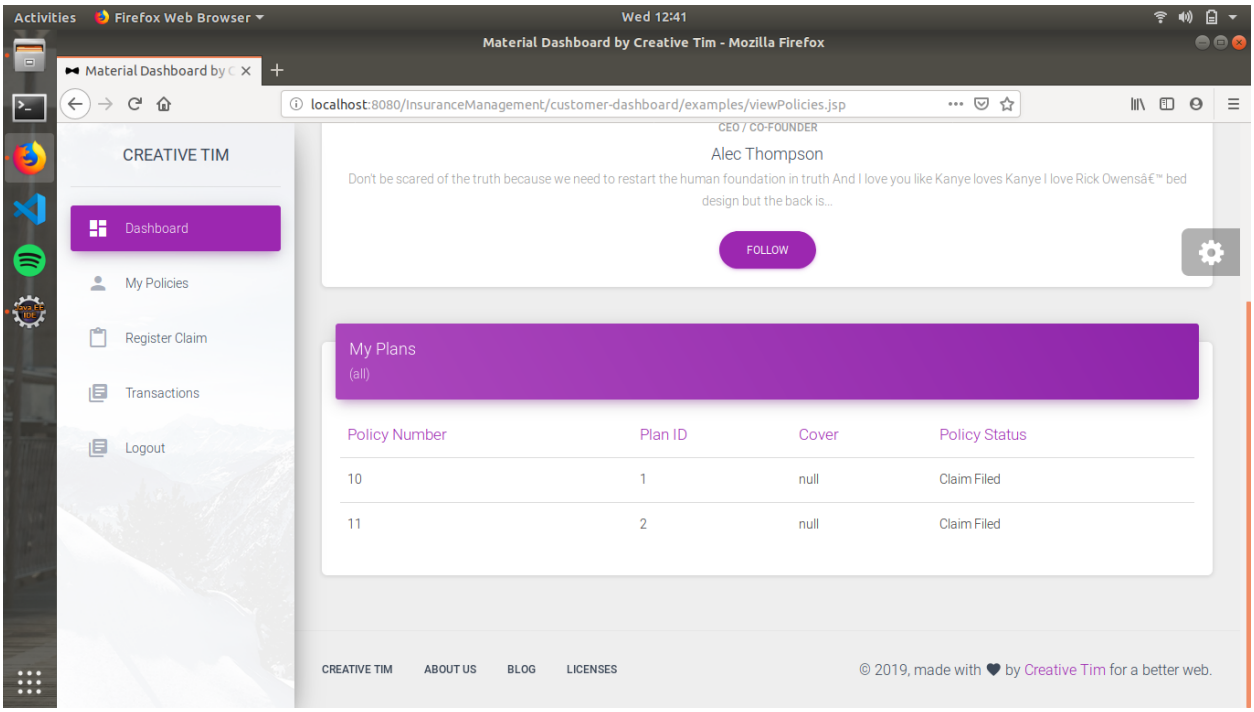
Features

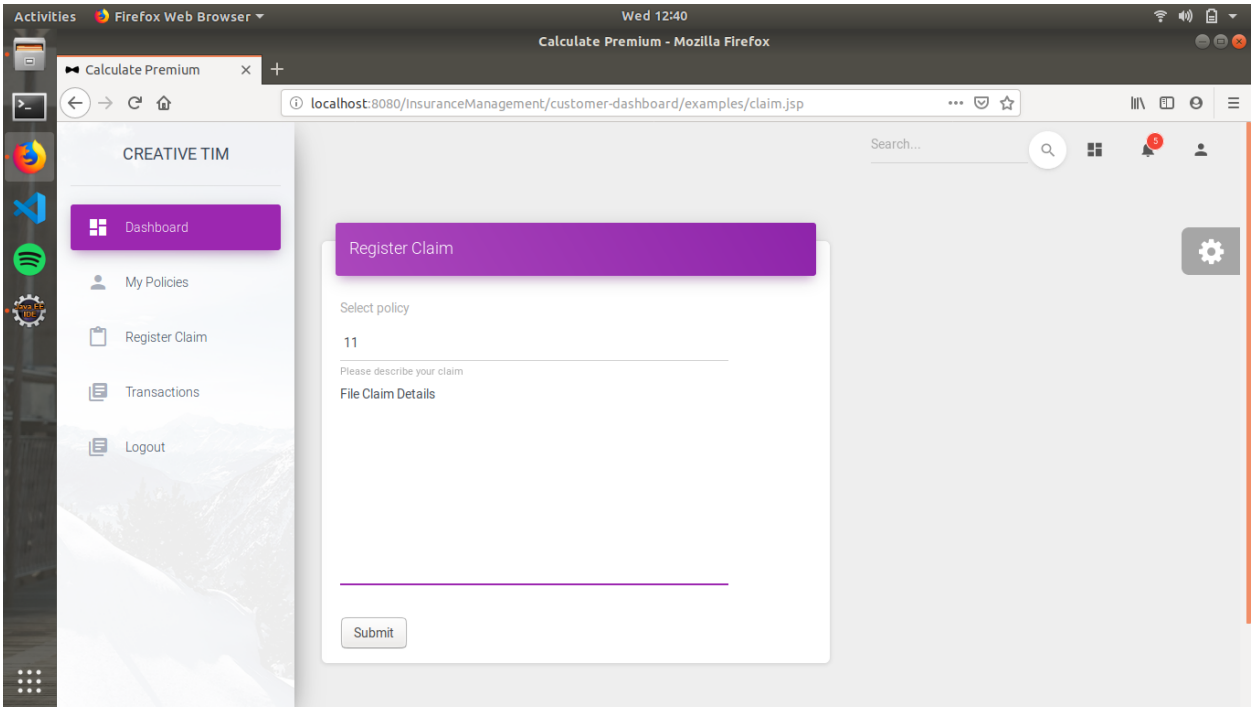
1. Automatically pays commission to the agent on premium payment.
2. Remind the agent about policies which are about to lapse.
3. Variable interest rate calculation for late payment.
4.Automatic due date updation.

Snapshots of the application

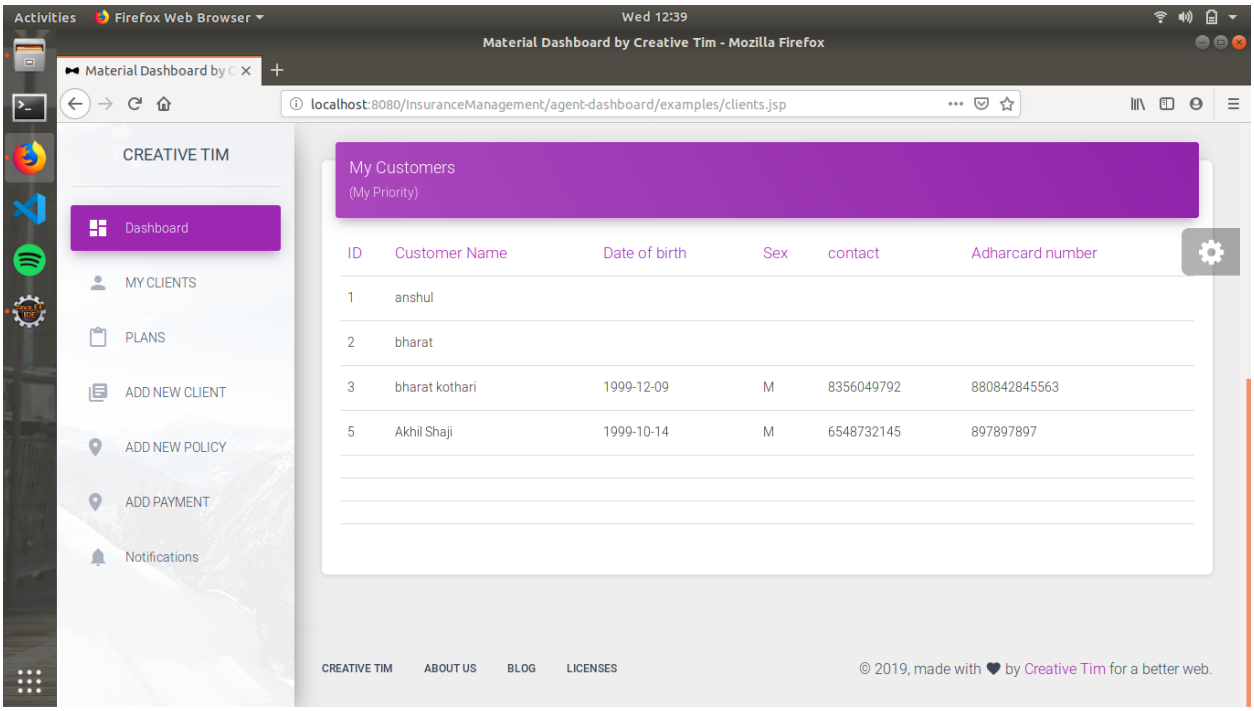
Customer View:






Activities
Firefox Web Browser
Wed 12:40
Calculate Premium - Mozilla Firefox
Calculate Premium
localhost:8080/InsuranceManagement/customer-dashboard/examples/claim.jsp
CREATIVE TIM
Search...
Dashboard
My Policies
Register Claim
Transactions
Logout
Register Claim
Select policy
11
Please describe your claim
File Claim Details
Submit

AGENT VIEW:


Activities
Firefox Web Browser
Wed 12:39
Material Dashboard by Creative Tim - Mozilla Firefox
Material Dashboard by
localhost:8080/InsuranceManagement/agent-dashboard/examples/clients.jsp
CREATIVE TIM
Dashboard
MY CLIENTS
PLANS
ADD NEW CLIENT
ADD NEW POLICY
ADD PAYMENT
Notifications
My Customers
(My Priority)
ID
Customer Name
Date of birth
Sex
contact
Adharcard number
1
anshul
2
bharat
3
bharat kothari
1999-12-09
M
8356049792
880842845563
5
Akhil Shaji
1999-10-14
M
6548732145
897897897
CREATIVE TIM
ABOUT US
BLOG
LICENSES
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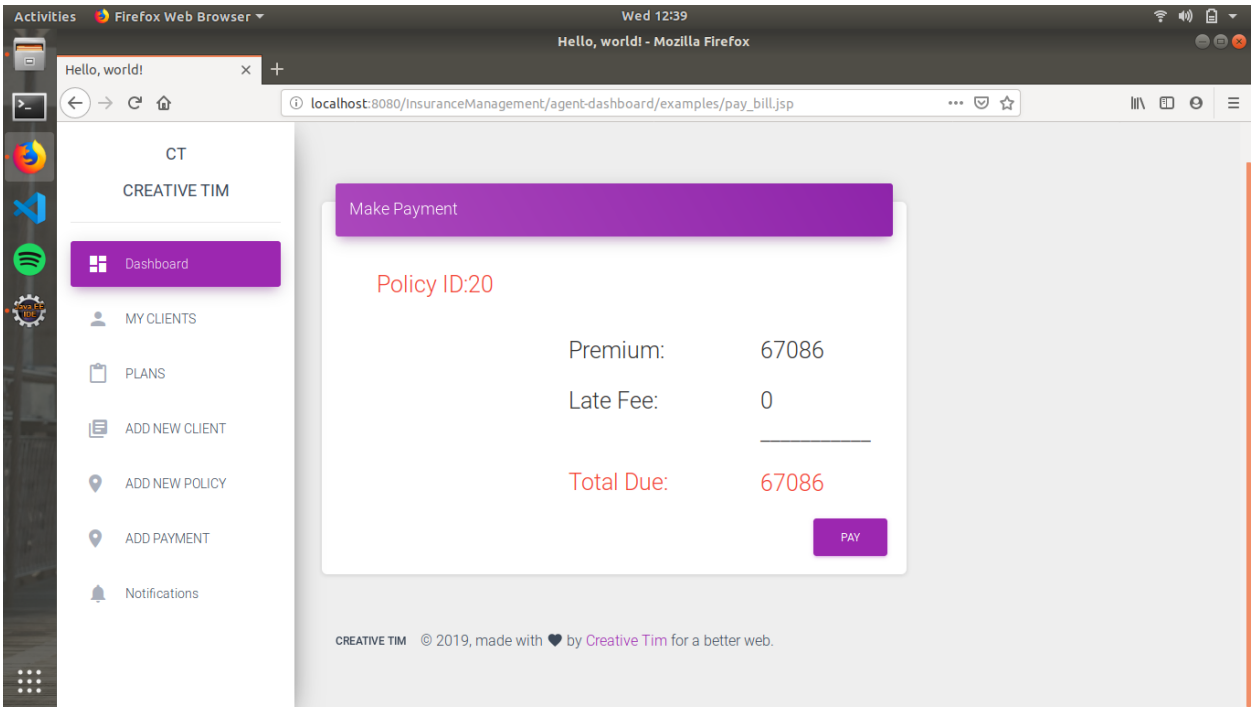
Activities
Firefox Web Browser
Wed 12:39
Hello, world! - Mozilla Firefox
Hello, world!
localhost:8080/InsuranceManagement/agent-dashboard/examples/pay_bill.jsp
CT
CREATIVE TIM
Dashboard
MY CLIENTS
PLANS
ADD NEW CLIENT
ADD NEW POLICY
ADD PAYMENT
Notifications
Make Payment
Policy ID:20
Premium: 67086
Late Fee: 0
Total Due: 67086
PAY
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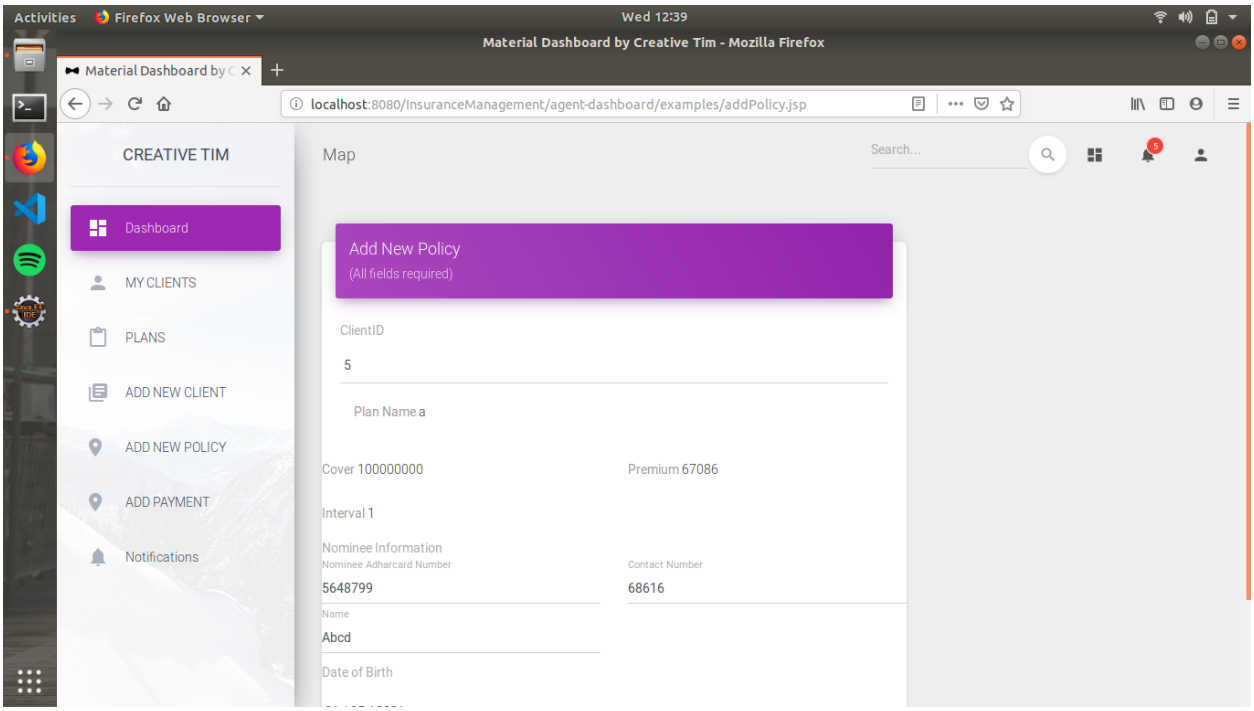
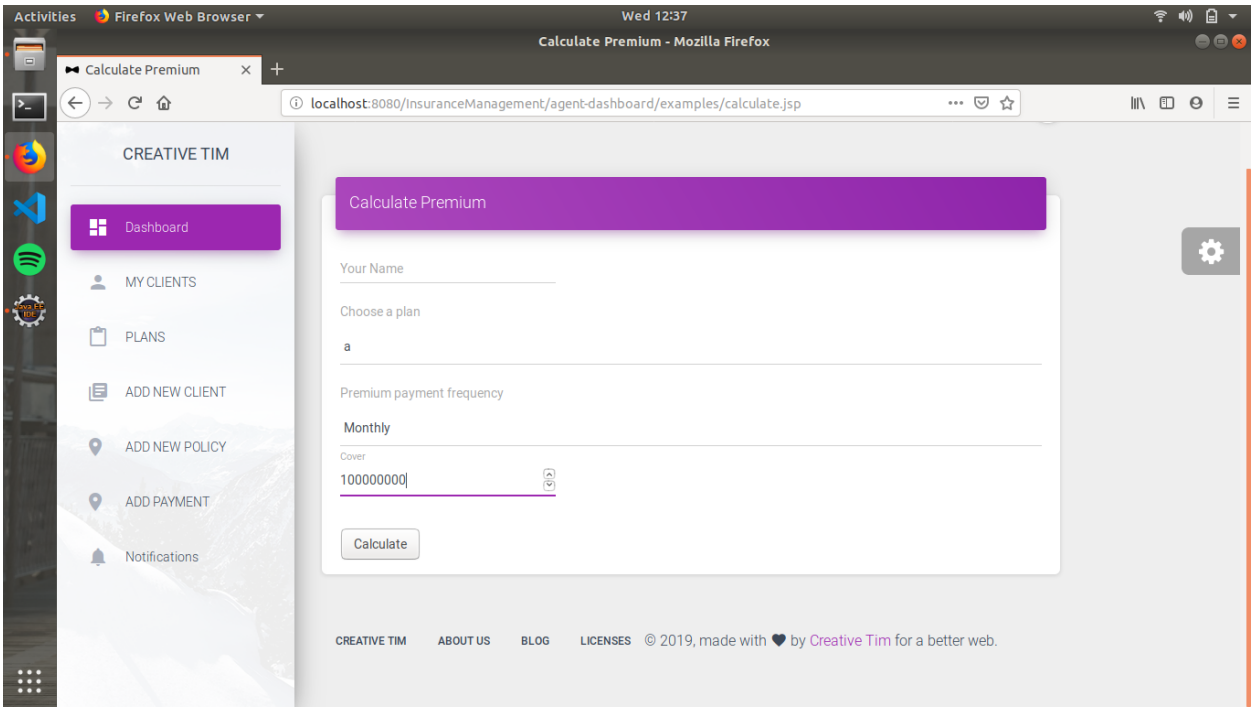

Activities
Firefox Web Browser
Wed 12:39
Material Dashboard by Creative Tim - Mozilla Firefox
Material Dashboard by C
localhost:8080/InsuranceManagement/agent-dashboard/examples/addPolicy.jsp
CREATIVE TIM
Map
Search...
Dashboard
MY CLIENTS
PLANS
ADD NEW CLIENT
ADD NEW POLICY
ADD PAYMENT
Notifications
Add New Policy
(All fields required)
ClientID
5
Plan Name a
Cover 100000000
Premium 67086
Interval 1
Nominee Information
Nominee Adharcard Number
5648799
Contact Number
68616
Name
Abcd
Date of Birth


Activities
Firefox Web Browser
Wed 12:37
Calculate Premium - Mozilla Firefox
Calculate Premium
localhost:8080/InsuranceManagement/agent-dashboard/examples/calculate.jsp
CREATIVE TIM
Dashboard
MY CLIENTS
PLANS
ADD NEW CLIENT
ADD NEW POLICY
ADD PAYMENT
Notifications
Calculate Premium
Your Name
Choose a plan
a
Premium payment frequency
Monthly
Cover
100000000
Calculate
CREATIVE TIM
ABOUT US
BLOG
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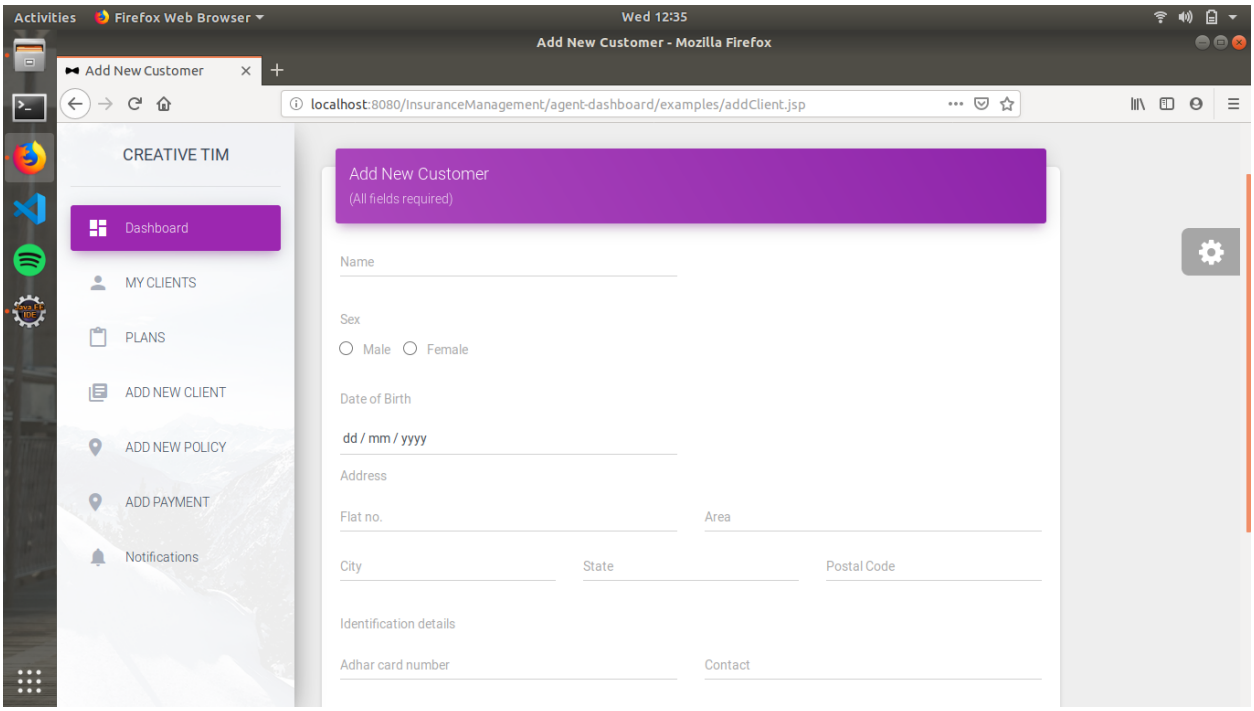
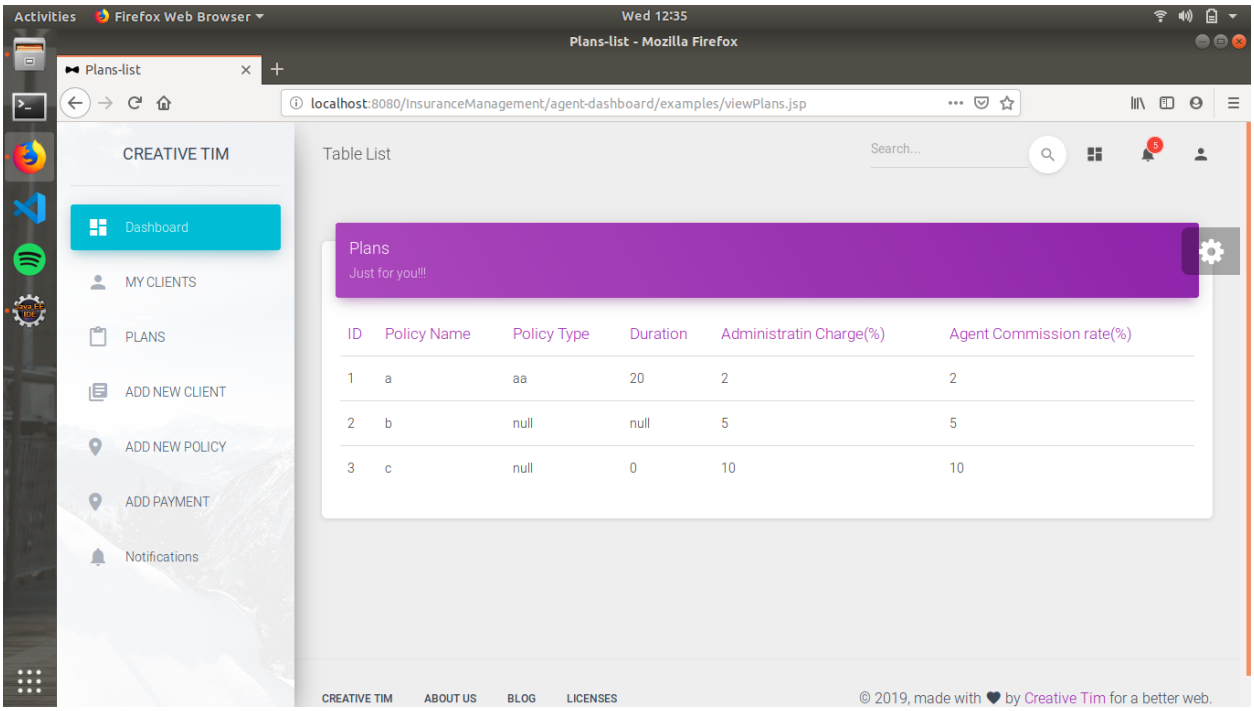

Activities
Firefox Web Browser
Wed 12:35
Add New Customer - Mozilla Firefox
Add New Customer
localhost:8080/InsuranceManagement/agent-dashboard/examples/addClient.jsp
CREATIVE TIM
Dashboard
MY CLIENTS
PLANS
ADD NEW CLIENT
ADD NEW POLICY
ADD PAYMENT
Notifications
Add New Customer
(All fields required)
Name
Sex
Male
Female
Date of Birth
dd / mm / yyyy
Address
Flat no.
Area
City
State
Postal Code
Identification details
Adhar card number
Contact


Activities
Firefox Web Browser
Wed 12:35
Plans-list - Mozilla Firefox
Plans-list
localhost:8080/InsuranceManagement/agent-dashboard/examples/viewPlans.jsp
CREATIVE TIM
Table List
Search...
Dashboard
MY CLIENTS
PLANS
ADD NEW CLIENT
ADD NEW POLICY
ADD PAYMENT
Notifications
Plans
Just for you!!!
ID
Policy Name
Policy Type
Duration
Administratin Charge(%)
Agent Commission rate(%)
1 a aa 20 2 2
2 b null null 5 5
3 c null 0 10 10
CREATIVE TIM
ABOUT US
BLOG
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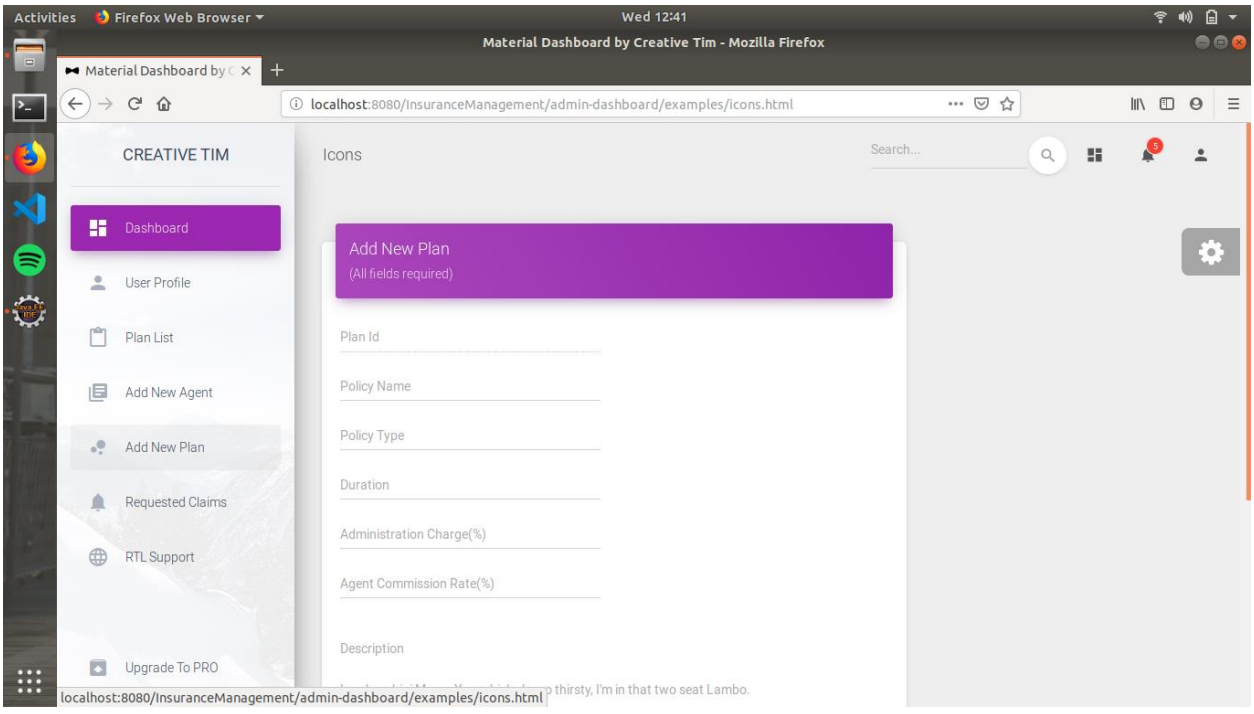
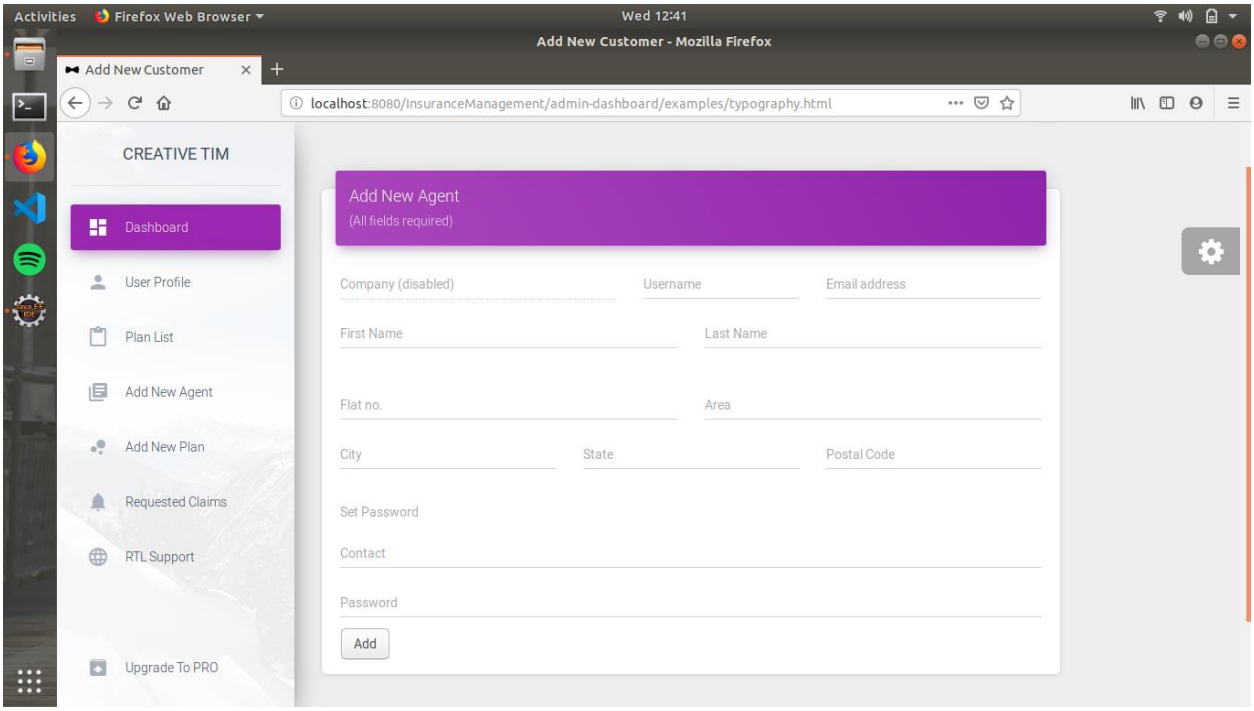
***ADMIN VIEW*:**


Activities
Firefox Web Browser
Wed 12:41
Material Dashboard by Creative Tim - Mozilla Firefox
Material Dashboard by
localhost:8080/InsuranceManagement/admin-dashboard/examples/icons.html
CREATIVE TIM
Icons
Search...
Dashboard
User Profile
Plan List
Add New Agent
Add New Plan
Requested Claims
RTL Support
Upgrade To PRO
Add New Plan
(All fields required)
Plan Id
Policy Name
Policy Type
Duration
Administration Charge(%)
Agent Commission Rate(%)
Description
localhost:8080/InsuranceManagement/admin-dashboard/examples/icons.html


Activities
Firefox Web Browser
Wed 12:41
Add New Customer - Mozilla Firefox
Add New Customer
localhost:8080/InsuranceManagement/admin-dashboard/examples/typography.html
CREATIVE TIM
Dashboard
User Profile
Plan List
Add New Agent
Add New Plan
Requested Claims
RTL Support
Upgrade To PRO
Add New Agent
(All fields required)
Company (disabled)
Username
Email address
First Name
Last Name
Flat no.
Area
City
State
Postal Code
Set Password
Contact
Password
Add

14.Conclusion:

Thus we have successfully implemented insurance management which helps us in buying insurance policies and viewing them with an additional feature for agents to manage their clients and calculation of commission for them.We have successfully implemented various functionalities of mysql and jsp and created the fully functional database management system for online insurance purchasing.

15.Concepts Used:

1.MySQL -(Database Backend)
2.JSP -(Front End)
3.JDBC -(Connectivity)
4.Triggers, Procedures, Functions, Views, etc.

16.Software Used

1.JAVA
2.HTML
3.CSS
4.BOOTSTRAP
5.ECLIPSE

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