Secure Bank Pilot Project- Secure Software Engineering

# Secure Coding – Project Cover

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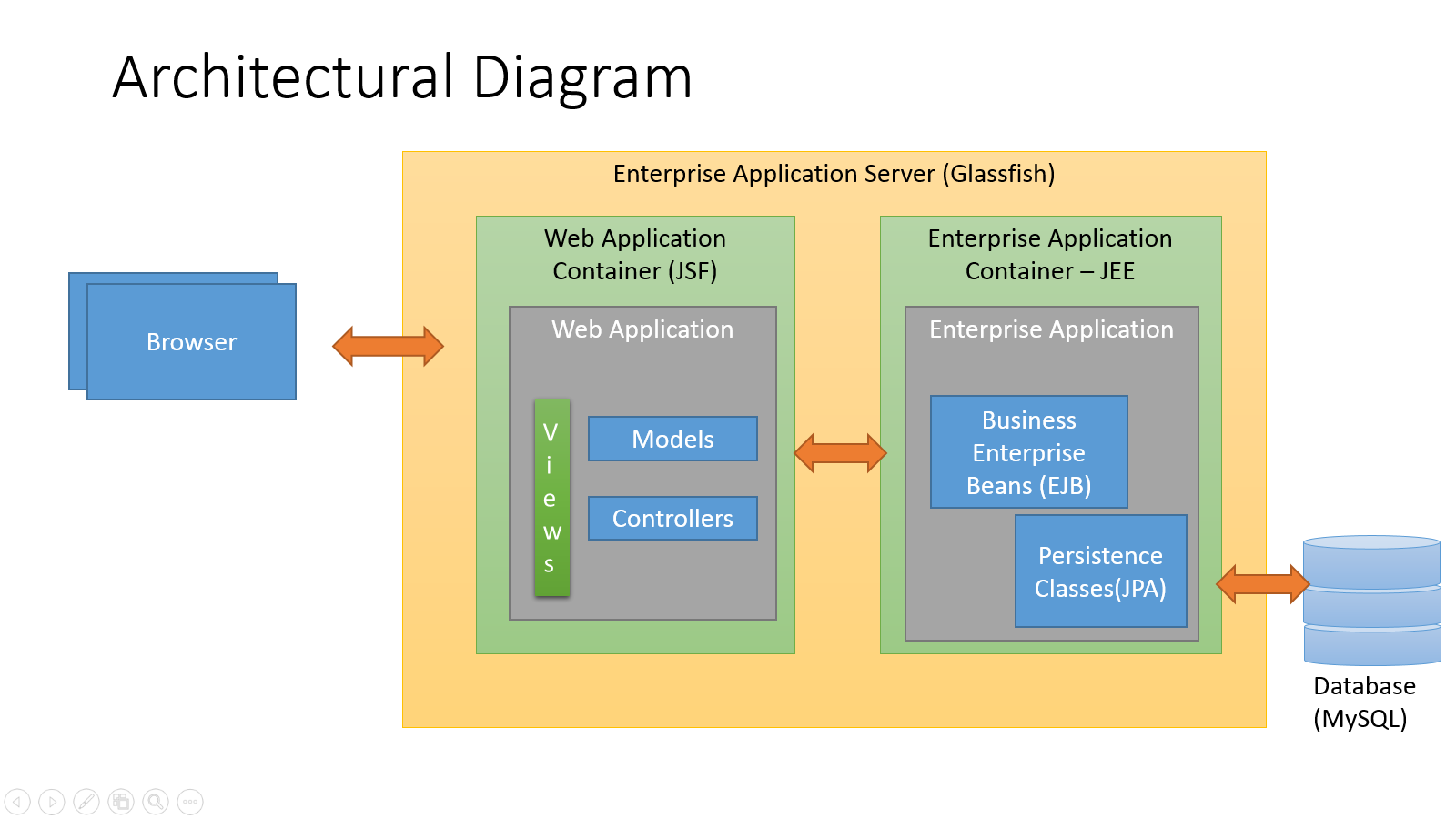
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# Architecture Diagram



## Project Structure: Web Layer - Web Models – Business

|  |  |
| --- | --- |
| Figure : VIEW LOGIC | Figure :UI MODELS |

|  |  |
| --- | --- |
| Figure : Enterprise Business Beans | Figure : Persistence Layer |

# Project Setup

## Development Environment

Development Editor: NetBeans 8.0

Enterprise Server: Glassfish 4 (Comes along with NetBeans)

JDK: 1.8

Database Design: MySQL Workbench

Database: MySQL

## Setup Steps

* + - * 1. Install JDK 1.8
        2. Install Netbeans 8.0
        3. Install MySQL Workbench along with MySQL Server
        4. Open Database Design Document : db-design-sse-secure-online-bank.mwb
        5. Forward Engineering to Create Database from the Database Design
        6. Open Maven Project in Netbeans
        7. Run the project

# DB Design

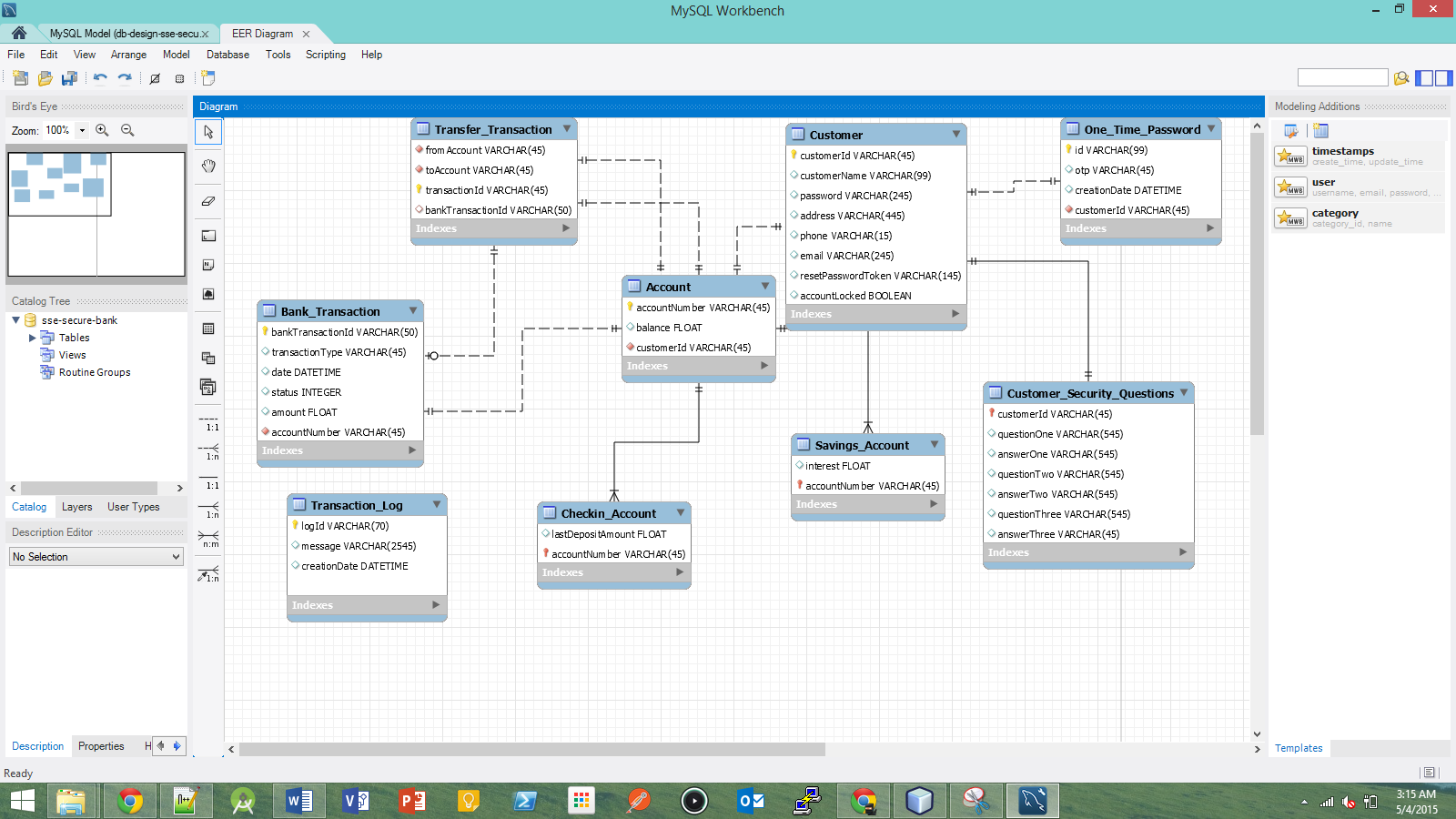


Figure : Database Schema

# Login/Logout

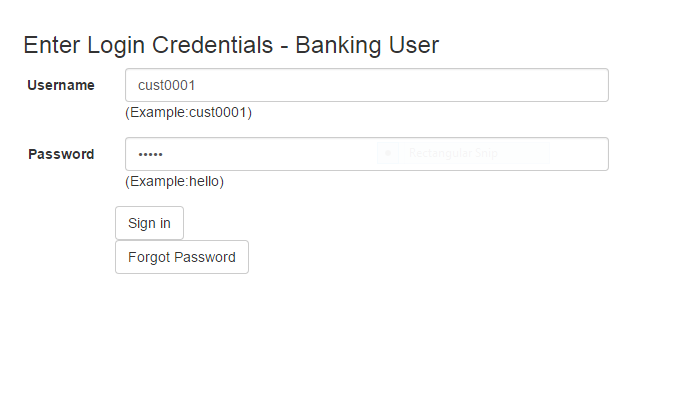


Figure : Account Login Page (LoginPage.xhtml)

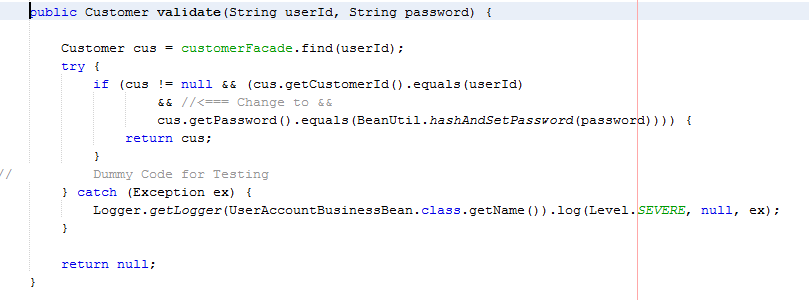
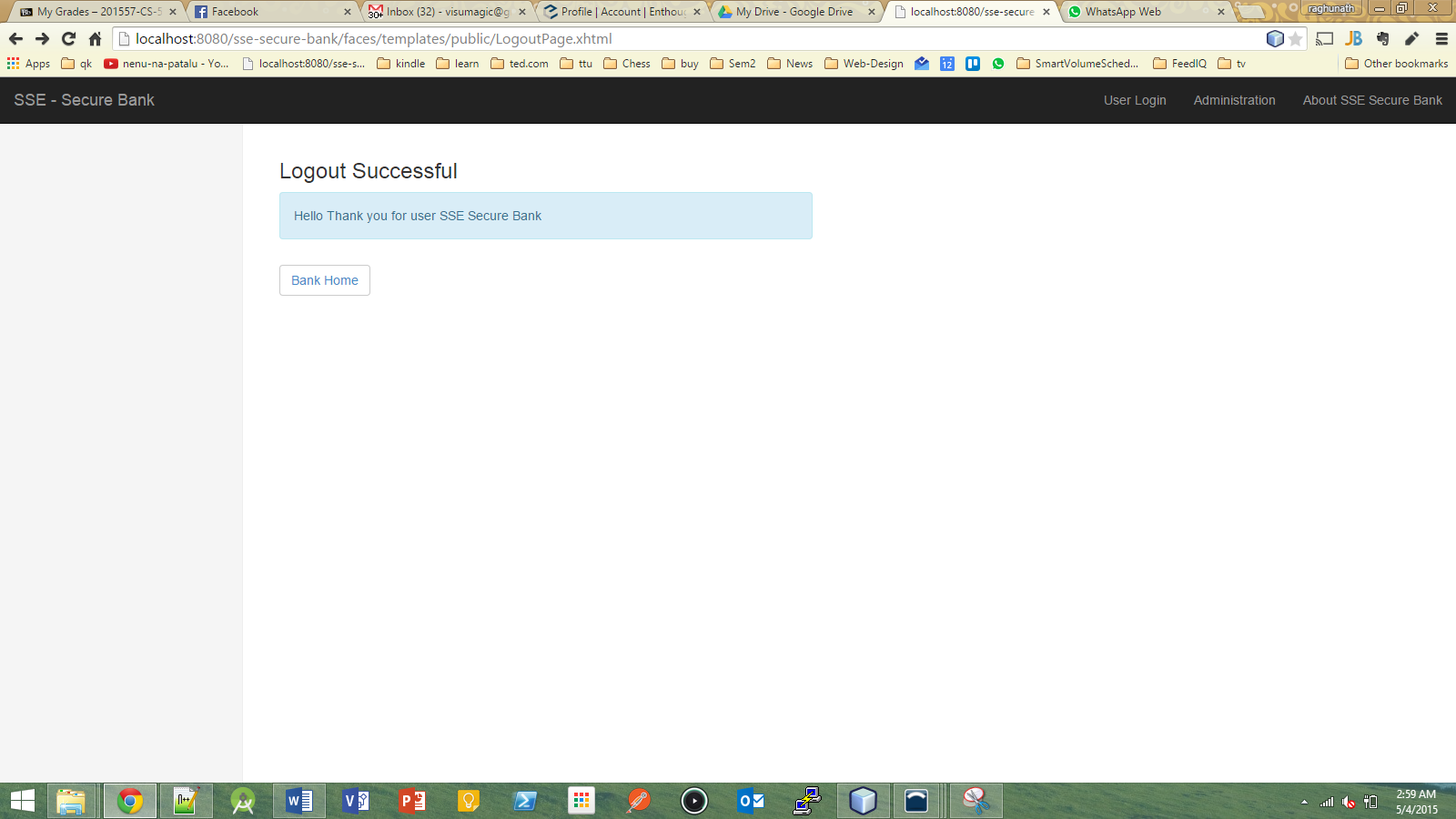
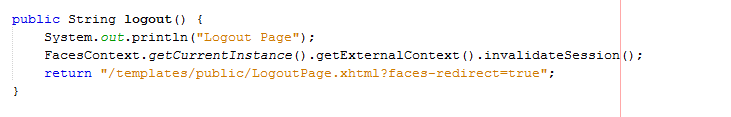


Figure : Validate User Credentials - UserAccountBusinessBean.java





# Password - MD5

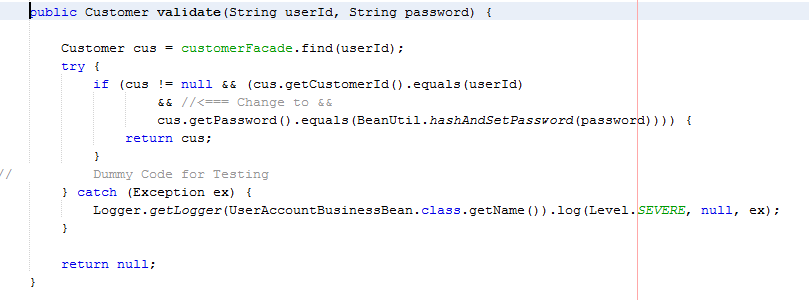


Figure : Validate User Credentials - UserAccountBusinessBean.java

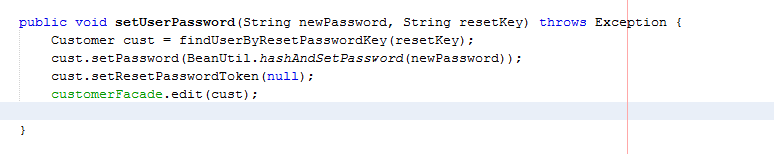


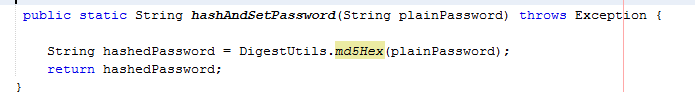
Figure :Set Md5 Password Logic - ResetPasswordUIBean.java

Figure :Apache DigestUtils - BeanUtil.java

# Session Invalidate - 5 min (Configurable)

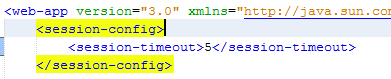
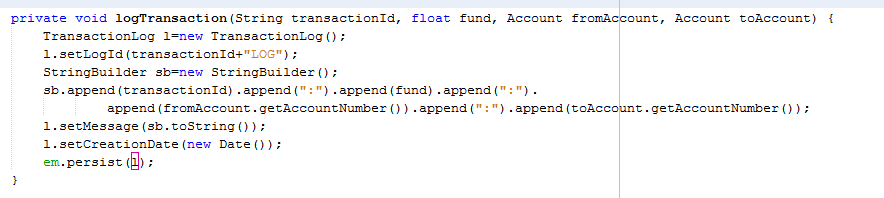
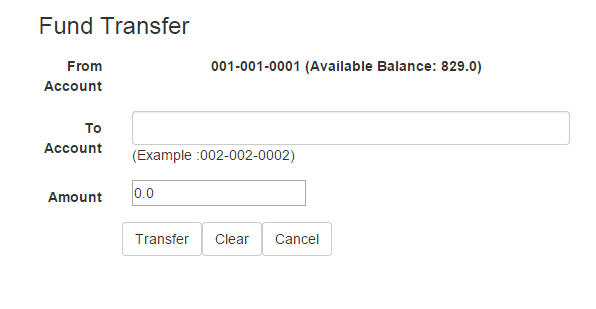


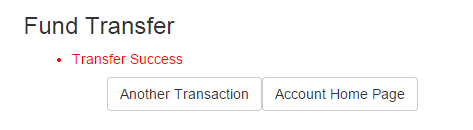
Figure : web.xml

# Transaction Log



# Fund Transfer





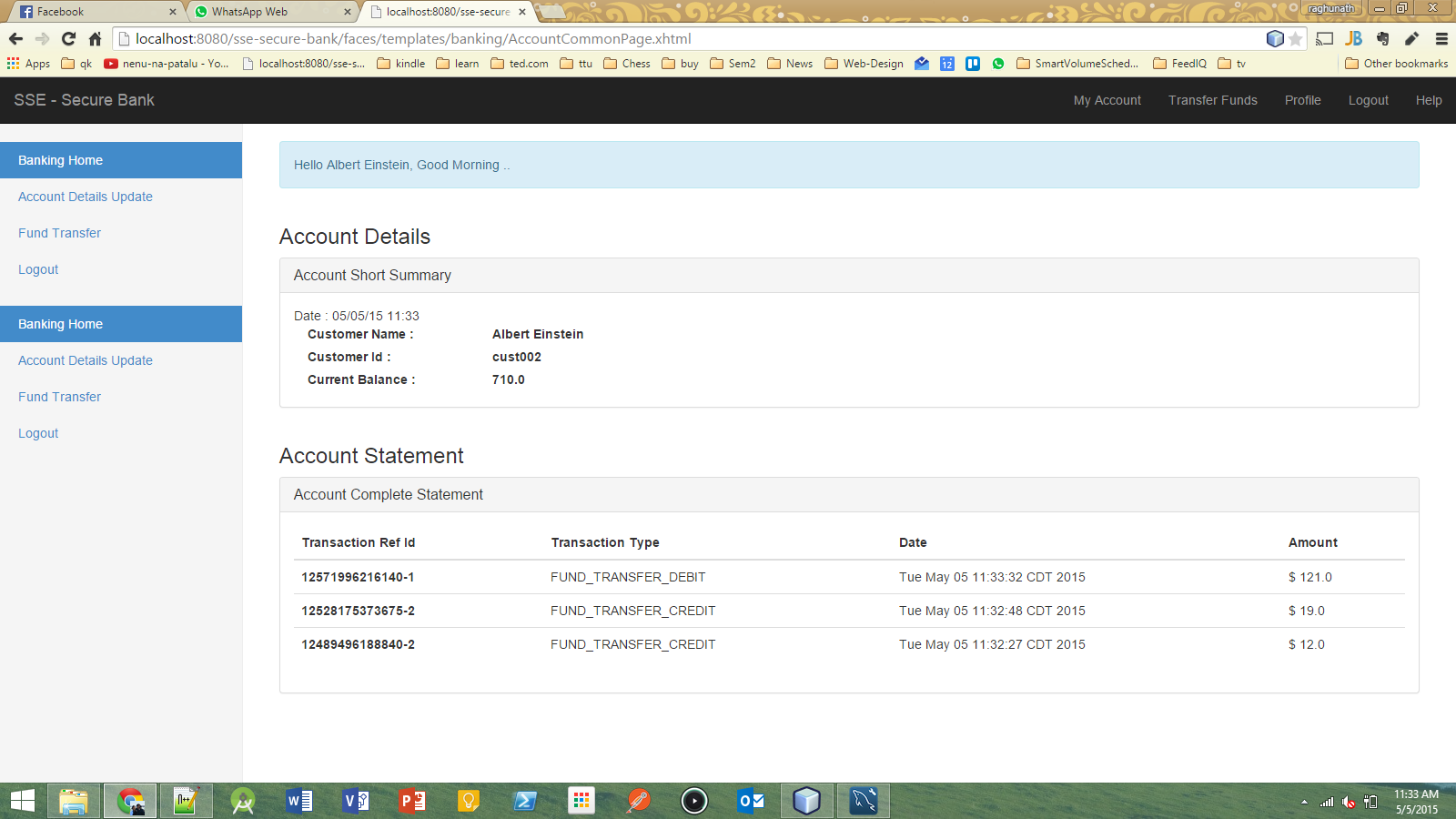
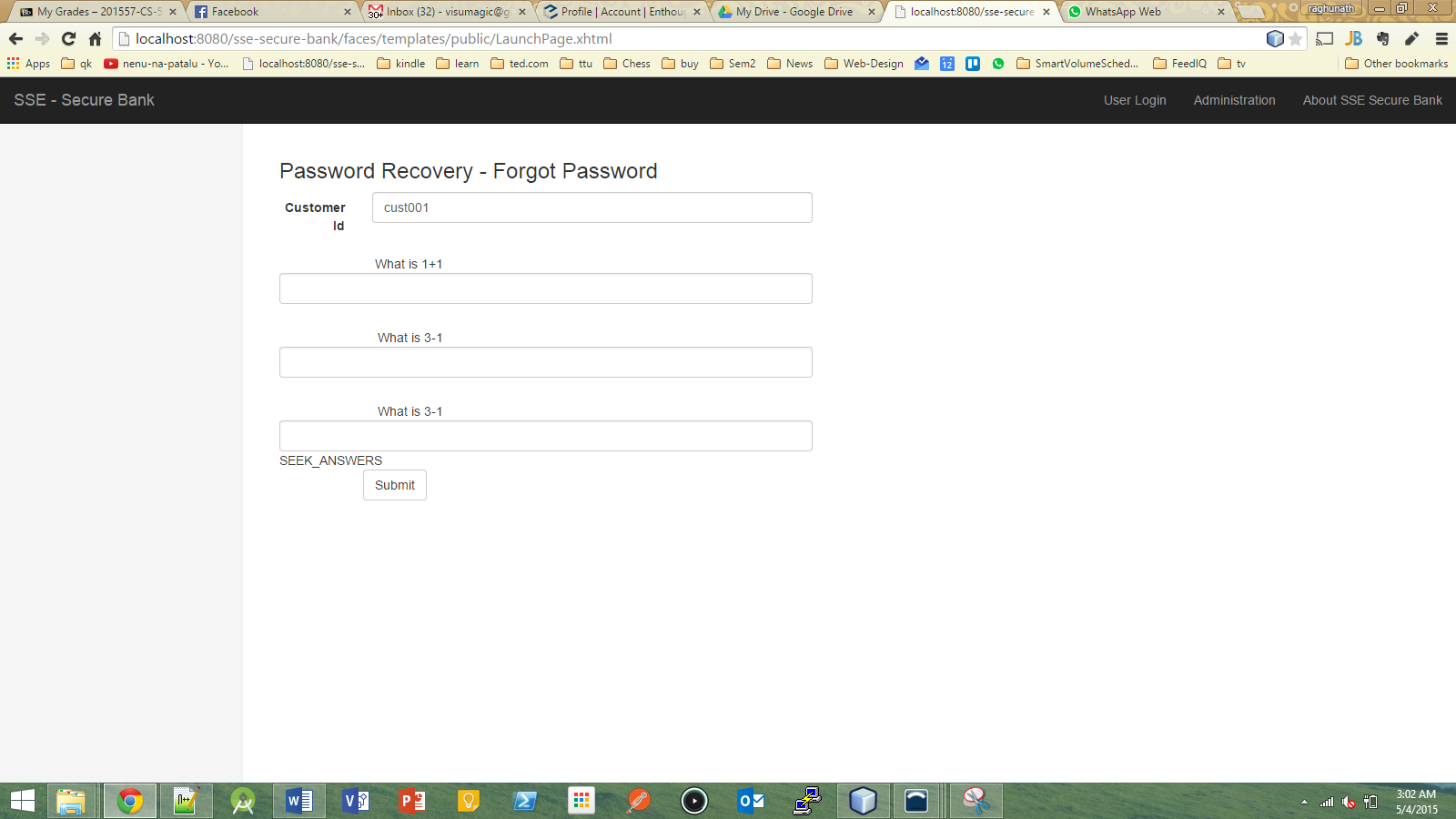
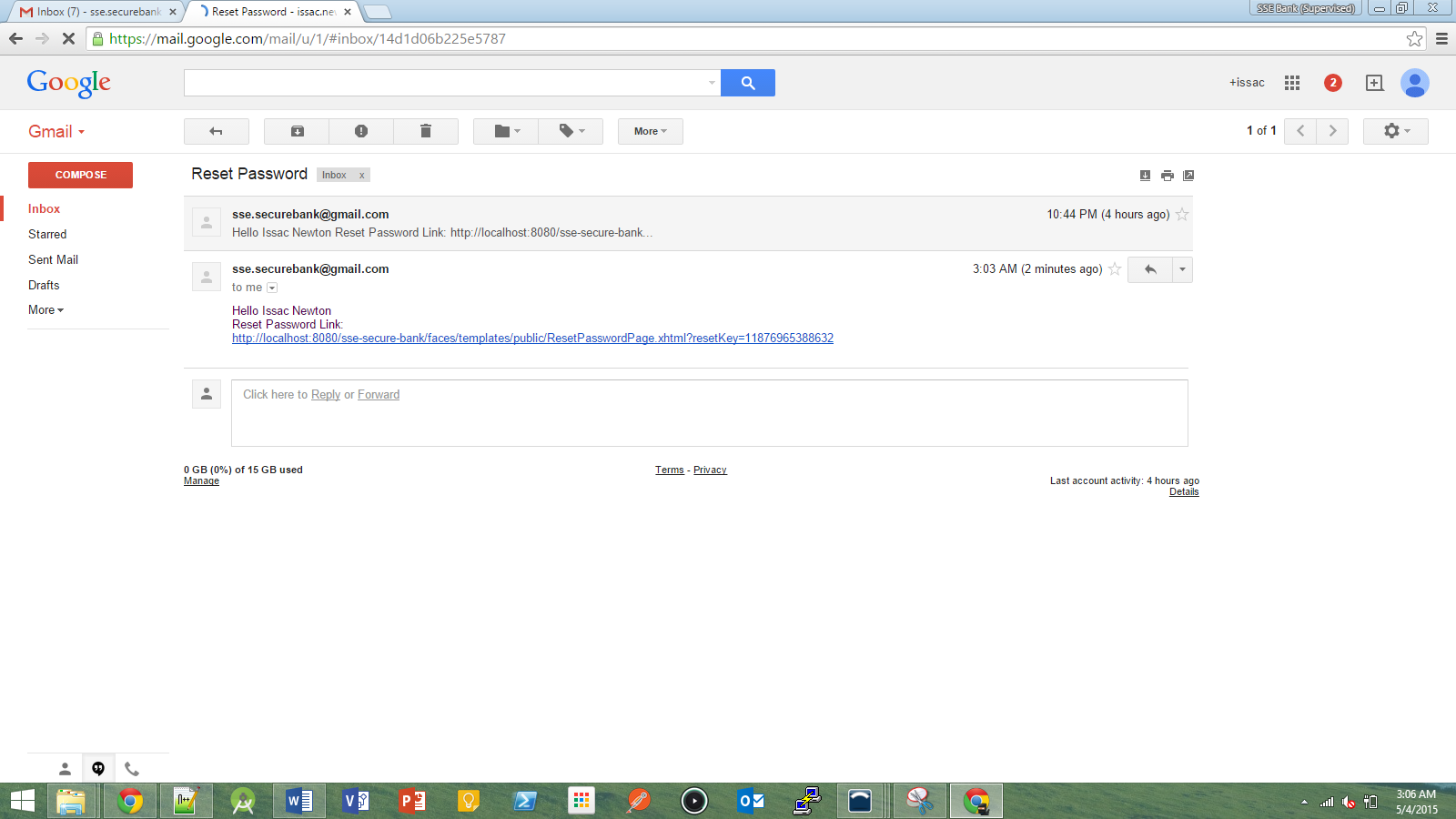
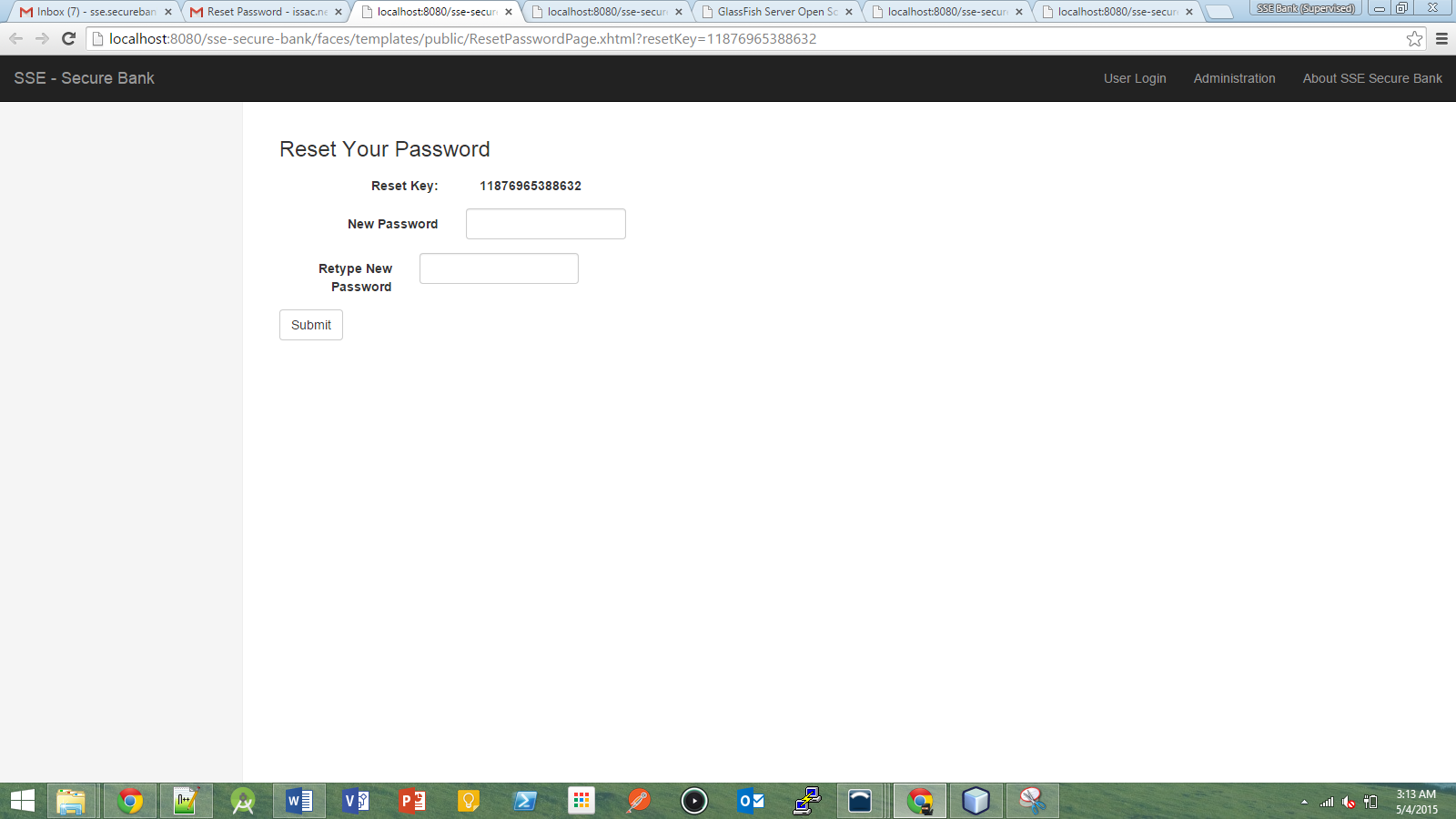


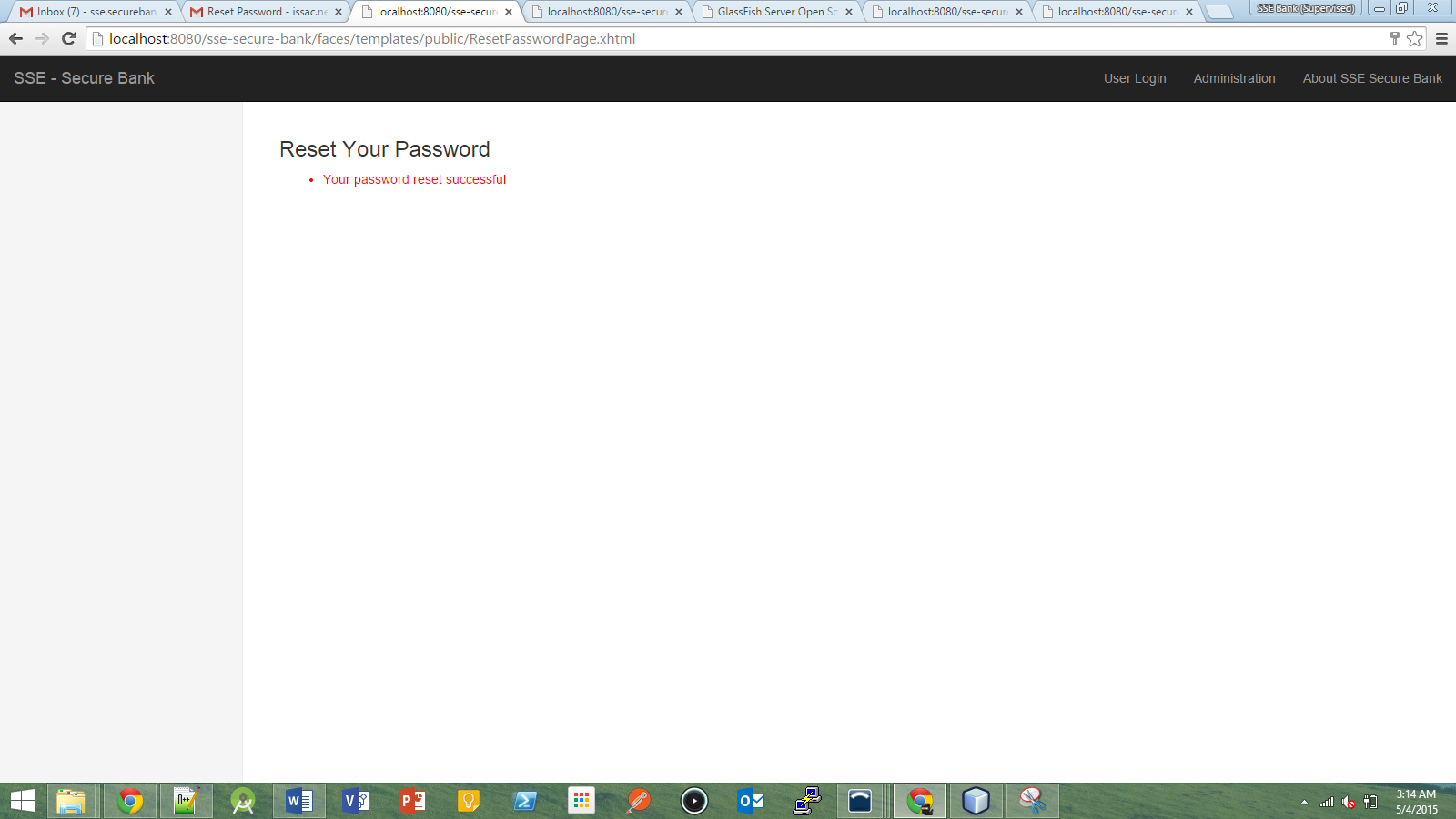
Figure 12: Account Statement After Fund Transfer

# OTP - Password Reset – Email Generation

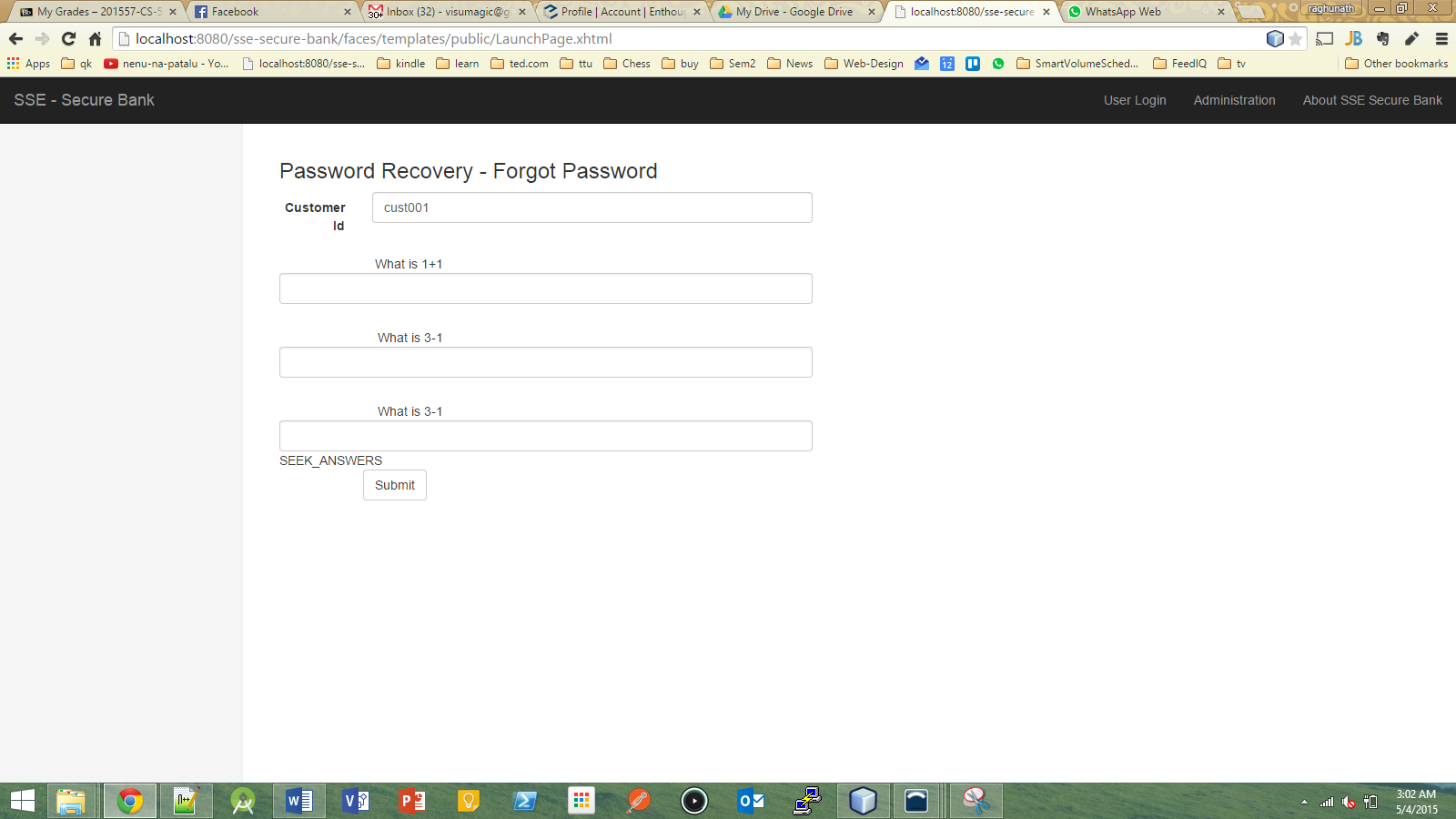








# Secure Questions



# Database Models

