**Credit Card Management System**

**The Credit Card Management System** is an application which can be adjusted and viewed by the managers of the Bank.

Itwill include the following fields:

1. **Customer Details** - This Module will be used by the Bank admin to view or adjust the existing Customer details from the system.
2. **Transaction Detail** - This Module will be used by bank admin to enter the bank details received upon a request approval from admin. The system should then update the Customer details in the system along for the corresponding.

### Built With

Java

JDBC

Hadoop

Sqoop

Oozie

### Installation

Unzip the folder called Case\_study.zip

**Details**

### 2.1.1 Transaction and Customer Details Module

### (RDBMS/MySQL)

### Create the MySQL connection with MySQL Workbench with following properties:

### Username: root

### Password: password

### Port: 3306

### Note: This connection is used throughout the requirements.

### Open db.sql from path: /case\_study/2.1.1 Transaction and Customer Details Module/db.sql

1. Execute the file to automatically create and populate the database cdw\_sapp with records used during requirements.

### (JAVA)

PATH: /case\_study/2.1.1 Transaction and Customer Details Module/Case\_study\_tanya\_mangal.zip

### Unzip the folder mentioned in the path above

### Import the project in eclipse

### On first opening the project, you may experience an error, due to a missing JDBC jar. Follow these steps to add the jar:

* + Right on Referenced Libraries in the Eclipse file explorer and navigate to Build Path > Configure Build Path.

.

### Run the code after

**2.2.1 [Data Extraction and Transportation with Sqoop]**

1. Open Hadoop’s local terminal on chrome with the URL: *your\_vm\_ip*:4200.

PATH: /Case\_study/2.2.1 Data Extraction and Transportation with Sqoop/sqoopqueries

1. Copy and paste each sqoop job command found in the path above into terminal and execute to create the sqoop jobs.

**2.2.2 [Data Loading Module]**

1. Open Ambari by opening chrome with the URL: *your\_vm\_ip*:8888.
2. Enter login credentials for user: maria\_dev and password: maria\_dev
3. navigate to Hive View.

PATH: /Case\_study/2.2.2 data Loading Module/Hive

1. Copy and paste the contents of each file in the above path into hive and execute.

**Prerequisite for Requirements 2.2.3 and 2.2.4**

Adding the java-json.jar.

PATH: /Case\_study/java-json.jar

1. Go to Ambari and then to file view
2. Place the above jar on HDFS path /user/oozie/share/lib/lib\_20161025075203/sqoop

NOTES:

* The lib\_20161025075203 directory may be different, if this is the case, the workflows for requirements 2.2.2 and 2.2.3 need to be changed on the <archive> tag.

Upload sql database on Linux Virtual machine

1. Transfer db.sql on linux machine through winzip username: root password:password port:2222
2. Run the script on virtual machine workbench.

**2.2.3 [Automation Process with Oozie]**

**Unzip the folder**

PATH: /Case\_study/2.2.3 Automation process with Oozie/unOpt/unopt\_job.properties

1. Place the file located in the above path into /root/Documents/case\_study/ on the linux virtual machine.
2. PATH: /Case\_study/2.2.3 Automation process with Oozie/unOpt/workflow.xml Place the file into HDFS Path: /user/maria\_dev/Credit\_card\_system
3. Upload all Hive files from PATH: /Case\_study/2.2.2 data Loading Module/Hive into HDFS at PATH: /user/maria\_dev/Credit\_card\_system/HiveImports
4. Run the unopt workflow through the terminal

**2.2.4 [Process Optimization Module]**

**Unzip the folder**

PATH: /Case\_study/2.2.3 Automation process with Oozie/Opt/job.properties

1. Place the file located in the above path into package /root/Documents/case\_study/ on the linux virtual machine.

PATH: /Case\_study/2.2.3 Automation process with Oozie/Opt/coordinator.xml

PATH: /Case\_study/2.2.3 Automation process with Oozie/Opt/workflow.xml

1. Place the two files located in above paths into HDFS PATH: user/maria\_dev/Credit\_card\_system
2. Execute the job.properties from the termninal

**2.2.5 [Data Visualization]**

PATH: /Case\_study/Data Visualization/