**Requirements, Analysis and Design Models**

**Bank Web Application**

**Name: Aaron Fu Siang Ann**

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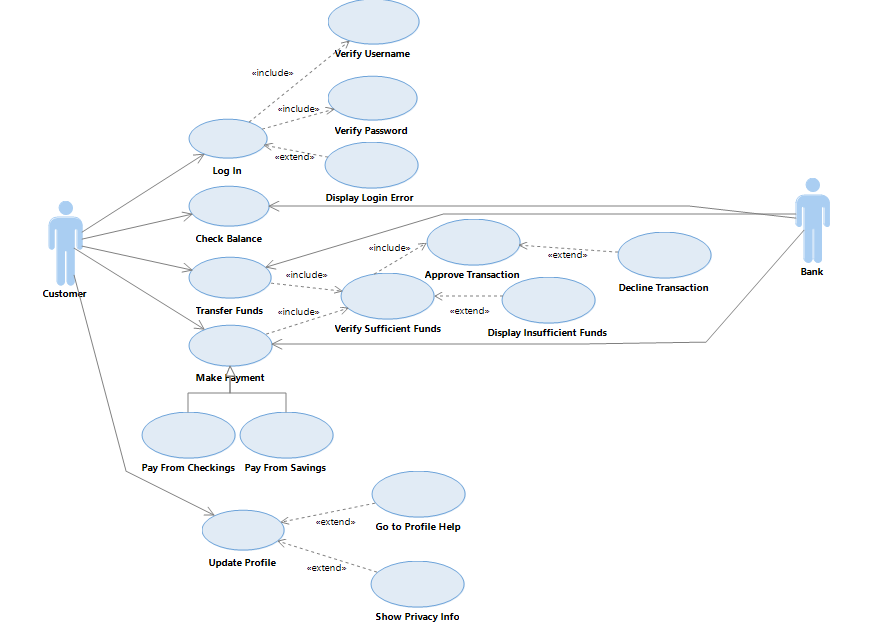
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# Requirements Model

## Use Case Diagram



## Use Case Description

### Use Case 1

|  |  |
| --- | --- |
| **Use Case Name** | **Login** |
| Use Case Description | A user login to access their bank account |
| Actors | Customer |
| Pre-Condition | User already has an account |
| Post-Condition | Successful login to bank account and view menu |

|  |  |  |
| --- | --- | --- |
| **Main Scenarios** | **Serial No** | **Steps** |
| Actors/Users | 1 | Enter username |
|  |  | Enter password |
|  | 2 | Verify username and password |
|  | 3 | Allow access to bank account |
| Extensions | 2a | Invalid username |
|  |  | Display login error |
|  | 2b | Invalid password |
|  |  | Display login error |

### Use Case 2

|  |  |
| --- | --- |
| **Use Case Name** | **Check Balance** |
| Use Case Description | A customer checks account balance |
| Actors | Customer, Bank |
| Pre-Condition | Customer login successfully |
| Post-Condition | Successful viewed account balance |

|  |  |  |
| --- | --- | --- |
| **Main Scenarios** | **Serial No** | **Steps** |
| Actors/Users | 1 | Choose check balance option |
|  | 2 | Bank gets balance for customer |
|  | 3 | Bank returns balance |
|  | 4 | Display balance on screen for customer |

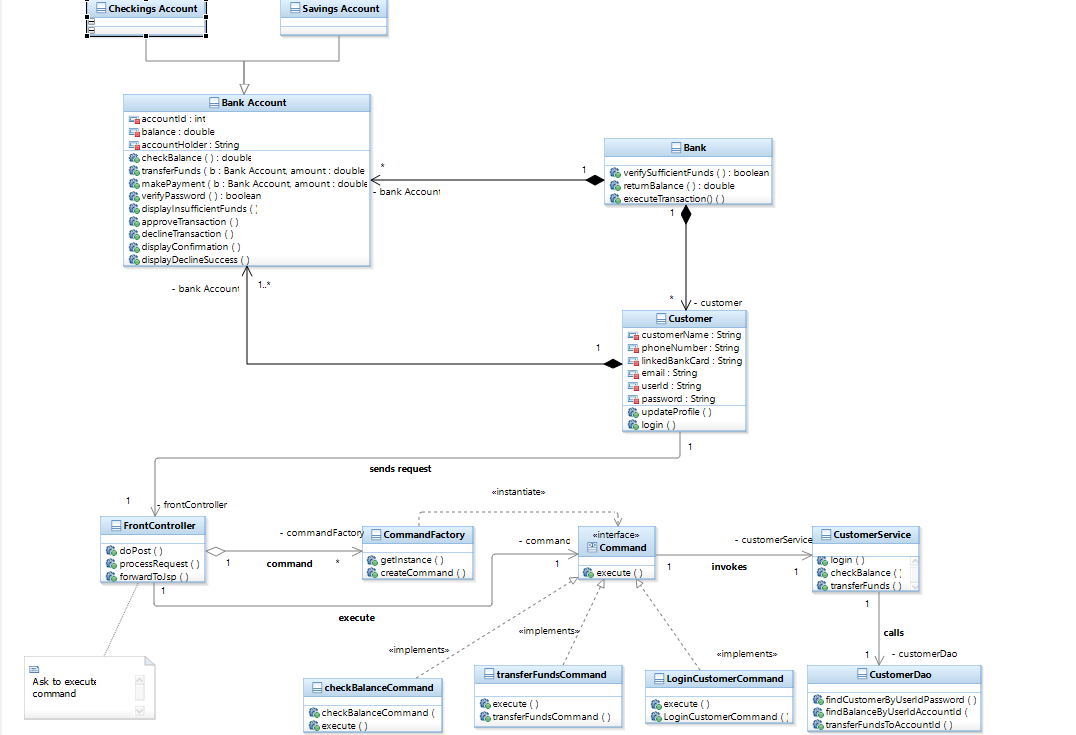
### Use Case 3

|  |  |
| --- | --- |
| **Use Case Name** | **Transfer Funds** |
| Use Case Description | Customer transfer funds to another bank account |
| Actors | Customer, Bank |
| Pre-Condition | Customer successfully login  Customer has sufficient funds |
| Post-Condition | Successful transfer funds to another bank account |

|  |  |  |
| --- | --- | --- |
| **Main Scenarios** | **Serial No** | **Steps** |
| Actors/Users | 1 | Customer choose transfer funds option |
|  | 2 | Enter bank account to transfer |
|  | 3 | Enter amount to transfer |
|  | 4 | Bank verify sufficient funds |
|  | 5 | Customer confirms and approve transaction |
|  | 6 | Funds successfully transferred |
| Extensions | 4a | Insufficient Funds |
|  |  | Display Insufficient Funds error |
|  | 5b | Customer declines transaction |

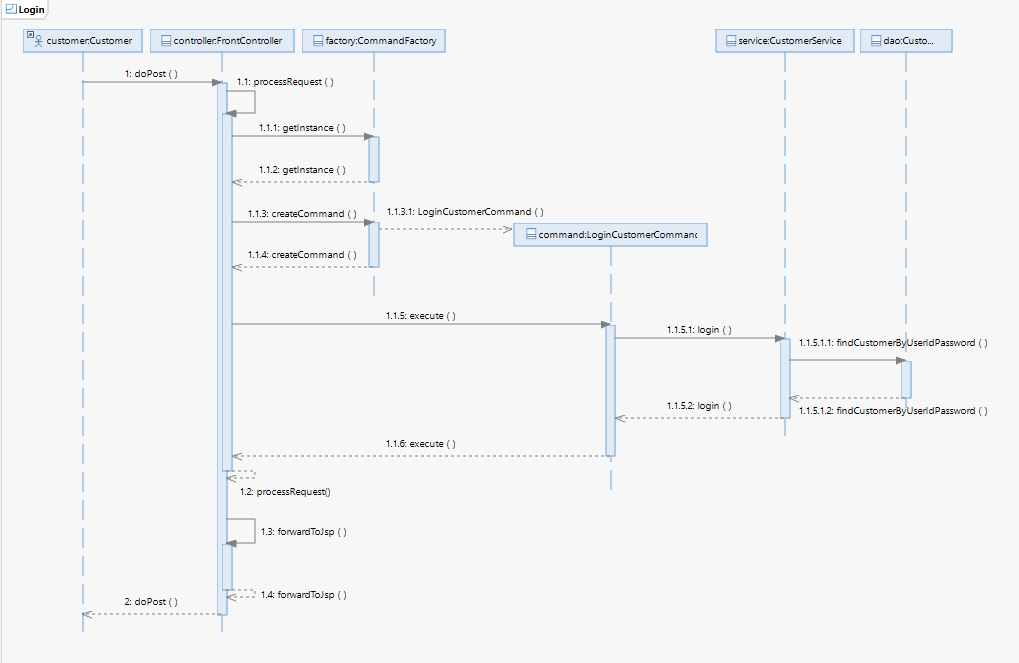
# Analysis Model

## Class Diagram

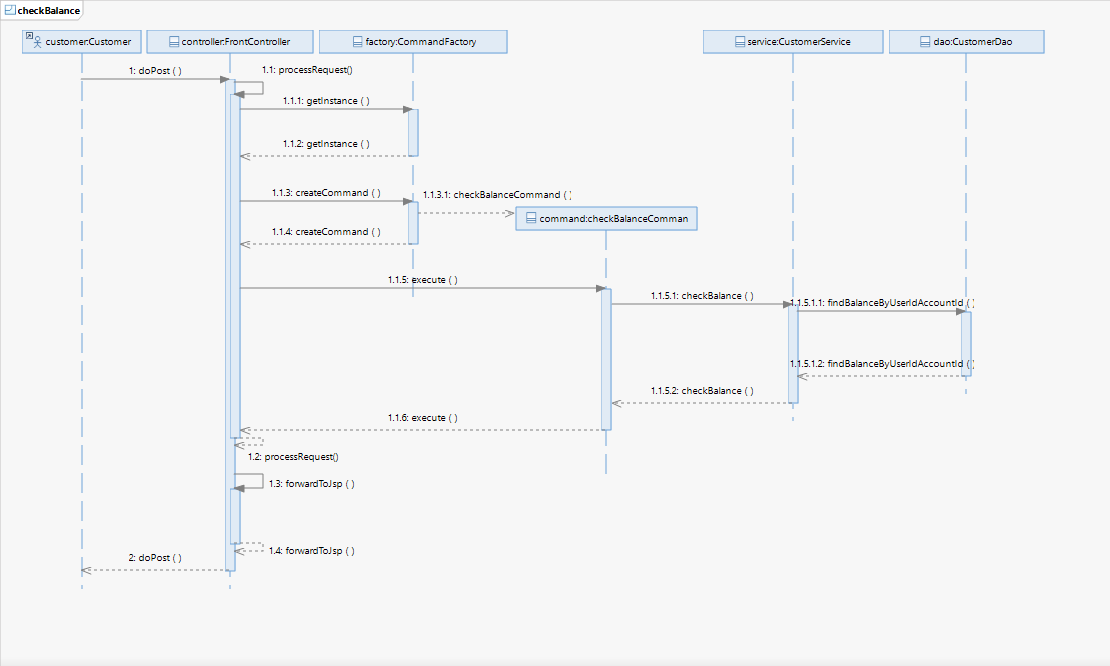


## Sequence Diagram

### Sequence Diagram 1



### Sequence Diagram 2



### Sequence Diagram 3

