ATM Machine Service - Assignment

This assignment is done using Java Spring boot framework. It uses maven as build tool. I have used in memory authentication for security. The server is configured to listen at port **8085**. All APIs would require basic auth with the account number to be passed in as username and pin to be passed in as password. During startup the application is initialised with below two account numbers and atm balances that were provided in the assignment.

Account Number	PIN	Opening Balance	Overdraft
123456789	1234	800	200
987654321	4321	1230	150

Initial ATM cash status : €1500 made up of 10 x €50s, 30 x €20s, 30 x €10s and 20 x €5s

The latest application code is uploaded into following git folder:
https://github.com/selvamdurai/atm

The docker image is uploaded in following path:
https://hub.docker.com/repository/docker/selvamdurai/atm-service

I have exposed following APIs.

Account Balance

This API is to retrieve the balance for the provided account number.

Sample URL : http://localhost:8085/api/account/balance/123456789

Authorisation details : Basic Auth : 123456789/1234

Input : <none>

Expected Sample Response::
{
    "accountNumber": "123456789",
    "balance": "800.00"
}

Withdraw

This API is designed to withdraw money from the customers account.

Sample URL: http://localhost:8085/api/account/withdraw

Sample Input:
```
{
    "account":"123456789",
    "amount": 200
}
```

Expected Sample Response:
```
{
  "notes": {
     "Fifties": 4
  },
  "account": {
     "accountNumber": "123456789",
     "balance": 600,
     "overdraftLimit": 200
  },
  "message": "SUCCESS"
}
```

Deposit

This API is designed to add money to customer's account balance.

Sample URL: http://localhost:8085/api/account/deposit

Sample Input:
```
{
    "accountNumber":"123456789",
    "balance": 200
}
```

Expected Sample Response::
```
{
    "message": "SUCCESS"
}
```

Atm Status

This API is designed to provide the cash status of the ATM.

Sample URL : http://localhost:8085/api/atm

Input: <none>

Expected Sample Response:

```json
{
  "cashRegister": {
    "Fifties": 6,
    "Twenties": 30,
    "Tens": 30,
    "Fives": 20
  },
  "totalCashAvailable": 1300.00,
  "lowestCurrencyNoteAvailable": 5
}
```

Atm Load Money

This API is designed to load cash into the ATM cash register.

Sample URL : http://localhost:8085/api/atm/load

Input:
```json
{
  "Fives": 20,
  "Tens": 30,
  "Twenties": 30,
  "Fifties": 10
}
```

Expected Sample Response: SUCCESS