```
┌─────────────────────────────┐
│         BankAccount         │
├─────────────────────────────┤
│ HoldersName                 │
│ AccountNumber               │
│ SortCode                    │
│ Balance                     │
│ APR                         │
│ Transactions                │
├─────────────────────────────┤
│ Deposit                     │
│ Withdraw                    │
└─────────────────────────────┘
```

```
┌───────────────────────────┐      ┌───────────────────────────┐
│      CurrentAccount       │      │      SavingsAccount       │
├───────────────────────────┤      ├───────────────────────────┤
│ DebitCard                 │      │ APRPaymentPreference      │
│ CheckBook                 │      │ ExtraBonus                │
│ OrderCheckBookFees        │      │                           │
├───────────────────────────┤      ├───────────────────────────┤
│ OrderCheckBook            │      │ CalculateInterest         │
│ CheckBalance              │      │ FinalSavingsReturn        │
│ AskHistoryTransactions    │      │                           │
└───────────────────────────┘      └───────────────────────────┘
```

A **bank account** has specific properties, as described above. When the account is opened the balance must be at least £1 and the transactions record is empty. For security purposes, the balance can be accessed only from inside the class 'BankAccount'. The holder of the account can deposit and withdraw money.

A **current account** is a type of bank account that gets 0% APR and it provides the user with debit card and check book. Account holders can check the account balance and also the transactions within this account. Furthermore, account holders can order a new check book. The bank charges £7.5 fees for any new check book that is ordered.

Another type of account is the **savings account**. Savings account has 0.8% APR. The interest can be paid monthly of yearly. If it is paid yearly, there is an extra bonus of 0.25%, so the APR becomes 1.05%.

Tasks Performed using OOP PHP:

1. Necessary classes created, according to the above class diagram and the description.

2. Two instances created:
   - An instance of the class 'current account' according to the following case. Ms. Jane Smith opens a current account with number '123456789', in the branch with the code 00-11-00. The initial balance is £680.
   - An instance of the class 'savings account' according to the following case. Mr. Peter Bond opens a savings account with number '987654321', in the branch with the code 11-11-11. The initial balance is £6800. Mr Bond wants to get the interest in yearly basis.

3. Ms Jane Smith did the following transactions after she opened the account:
   01/01/2019: withdraw £235
   05/01/2019: withdraw £138
   12/01/2019: deposited £85
   14/01/2019: deposit £300
   25/01/2019: withdraw £420
   30/01/2019: deposit £25

4. Old transaction first and new transaction later is printed on the screen along with the balance after the above transactions were performed. The Transaction states all the information if money is deposited or withdrawn and the amount.

5. Calculated and present on the screen the interest that Mr. Bond will receive for one year. Calculated and present on the screen the balance in this account at the end of two-year period.

6. New test case created for the class 'current account' where all the functions of the account is demonstrated, including 'OrderCheckBook'.