Develop a Java program to create a class Bank that maintains two kinds of account for its customers, one called savings account and the other current account. The savings account provides compound interest and withdrawal facilities but no cheque book facility. The current account provides cheque book facility but no interest. Current account holders should also maintain a minimum balance and if the balance falls below this level, a service charge is imposed. Create a class Account that stores customer name, account number and type of account. From this derive the classes Curr-acct and Sav-acct to make them more specific to their requirements. Include the necessary methods in order to achieve the following tasks: • Accept deposit from customer and update the balance. • Display the balance. • Compute and deposit interest • Permit withdrawal and update the balance • Check for the minimum balance, impose penalty if necessary and update the balance

```
class account{
  String name , acc_no ,acc_type;
  double balance;
  account(String name,String acc_no, String acc_type){
    this.name=name;
    this.acc_no=acc_no;
    this.acc_type=acc_type;
    balance=0;
  }
  void deposit(double amt){
    System.out.println("balance : "+balance);
    balance+=amt;
    System.out.println("updated balance : "+balance);
  }
  void withdraw(double amt){
    System.out.println("balance : "+balance);
    balance-=amt;
    System.out.println("updated balance : "+balance);
```

```
  }
}
class curr_acct extends account{
  curr_acct(String name,String acc_no, String acc_type){
    super(name,acc_no,acc_type);
  }
  double service= 100;
  double min_bal=3000;
  int charged=0;
  void check(){
    if(balance<min_bal&& charged==0){
      balance-=service;
      charged=1;
      System.out.println(service+" deducted due to low
balance");
    }
    if(charged==1)
    {
      System.out.println("your balance is low to avoid
beign fined again increase your balance");
    }
  }
  void disp_bal(){
    check();
    System.out.println("your account balance is
"+balance);
  }
}
class sav_acct extends account{
  sav_acct(String name,String acc_no, String acc_type){
    super(name,acc_no,acc_type);
  }
  int given=0;
  void interest(){
    if (balance>10000 && given==0) {
      balance+=0.007*balance;
      System.out.println("your account has been credited
with o.7% interest ");
      given+=1;
```

```
    }
    if (balance>100000 && given==1) {
      balance+=0.005*balance;
      System.out.println("your account has been credited
with o.5% interest ");
      given+=1;
    }
    if (balance>1000000 && given==2) {
      balance+=0.002*balance;
      System.out.println("your account has been credited
with o.2% interest ");
      given+=1;
    }

  }
  void disp_bal(){
    interest();
    System.out.println("your account balance is
"+balance);
  }

}
class bank{
  public static void main(String[] args) {
    sav_acct sav = new sav_acct("A","1b","savings");
    System.out.println("savings account functions:");
    sav.deposit(11000);
    sav.disp_bal();
    sav.withdraw(5000);
    curr_acct cur = new curr_acct("B","2b","current");
    System.out.println("current account functions:");
    cur.deposit(5000);
    cur.withdraw(2500);
    cur.disp_bal();
  }
}
```

OUTPUT:

```
PS D:\sem3\ooj_lab\06-11-2020> javac .\bank.java
PS D:\sem3\ooj_lab\06-11-2020> java bank
savings account functions:
balance : 0.0
updated balance : 11000.0
your account has been credited with o.7% interest
your account balance is 11077.0
balance : 11077.0
updated balance : 6077.0
current account functions:
balance : 0.0
updated balance : 5000.0
balance : 5000.0
updated balance : 2500.0
100.0 deducted due to low balance
your balance is low to avoid beign fined again increase your balance
your account balance is 2400.0
PS D:\sem3\ooj_lab\06-11-2020> javac .\shapes.java
```

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