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Lab Prgm-5

Q) Bank with Current & Savings Account.

Ans:

```
import java.util.*;
import java.lang.Math;
Class Account
{ String name;
  int acctno;
  char type;
  double balance;
  double dep;
  boolean cheq;

  void get (char c)
  { type = c;
    if (c=='s' || c=='S')
    cheq = false;
    else cheq=true;
    Scanner sc = new Scanner (System.in);
    System.out.println ("Enter name:");
    name = sc.nextLine();
    System.out.println("Enter acc no.");
    acctno = sc.nextInt();
    System.out.println("Enter current balance in acc:");
    balance = sc.nextDouble();
  }

  void putd()
  { System.out.println("Acc. details");
    System.out.println("Name:" +Name");
    System.out.println("Acc. No:" + acctno);
    System.out.println("Acc type:" + type);
    System.out.println(" balance:" + balance);
  }
```

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```
void depl()
{ Scanner ss = new Scanner (system.in);
  System.out.println("Enter amt. to deposit:");
  dep = ss.nextDouble();
  balance = balance + dep;
  System.out.println("Amt. deposited & balance updated");
}

void display()
{ System.out.println("Balance amt is:" + balance);
}

void check()
{ if (cheq == false)
  System.out.println("Cheque book facility not available");
  else
  System.out.println("Cheque book facility available");
}
}

Class Saving extends Account
{ double rate;
  double s-with;
  int no;
  int ch;
  double amt;
  double term;
  double pr;

void ci()
{ Scanner ss = new Scanner (System.in);
  System.out.println("Enter principal deposit amount");
```

```
        pr = ss.nextDouble();
        System.out.println("Enter rate of interest");
        rate = ss.nextDouble();
        System.out.println("Enter term (years)");
        term = ss.nextDouble();
        System.out.println("Enter no. of times int. is
                compounded annually :");
        n = ss.nextInt();
        amt = pr * Math.pow((1+(rate/100)),(n*term));
        balance += amt;
        System.out.println("Interest is compounded &
                deposited. Balance updated");
    }

    void with_sc()
    { Scanner ss=new Scanner (System.in);
      System.out.println("Enter amt. to be withdrawn:");
      s_with = ss.nextDouble();
      if (s_with > balance)
      System.out.println ("Insufficient balance");
      else
        { balance = balance - s_with;
      System.out.println("Money has been withdrawn
              & balance has been updated");
    }
}

class Current extends Account
{   double c_with;
    double pen;
    double min;
    Current ();
```

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```
{ pen = 100;
  min = 500;
}

void with_c()
{ Scanner xx = new Scanner(System.in);
  System.out.println("Enter amt. to withdraw:");
   c_with = xx.nextDouble();
  if (c_with > balance)
  { System.out.println("Insufficient funds!");
    return;
  }
  else
  { balance = balance - c_with;
  System.out.println("Amt. has been withdrawn
        & balance has been updated");
  }
 if (balance < min)
 { System.out.println("Balance is below the
  min. threshold. Service penalty = 100/-");
  if (balance < pen)
  System.out.println("Due to insufficient funds,
  penalty charge will be deducted from acc.
  after replenishing. Current balance is:"+balance);
 else
 { balance = balance - pen;
  System.out.println("Penalty charge has
  been deducted from account balance.
  Current balance is:" + balance);
  }
 }
}}
```

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```
class account1
{ public static void main (String a sss[])
  { int cch, chh;
    Scanner sx = new Scanner (System.in);
    System.out.println("Choose acc type : 1) Saving
                        2) current ");
    int ch = sx.nextInt();
    if (ch==1)
    { saving s = new Saving();
      s.get('s');
      do {
    System.out.println(" 1) Deposit money.
2) Calculate compound interest. 3) Withdraw money.
4) Display current balance. 5) Cheque book facility.
  6) Exit ");
    System.out.println("Pls enter choice:");
    chh = sx.nextInt();
    switch (chh)
    { case 1 : s.dep();
              break;

      case 2 : s.ci();
              break;

      case 3 : s.with_s();
              break;

      case 4 : s.display();
              break;

      case 5 : s.check();
              break;
```

```
        case 6: break;

        default: System.out.println("wrong option");
                 break;
      }
    } while (chh != 6);
  }
  else if (ch == 2)
  { Current cr = new Current();
    cr.get('c');
    do { System.out.println(" 1) Deposit money.
2) Chequebook facility. 3) Withdraw money,
4) Display balance, 5) exit ");
    switch (cch)
    { case 1: cr.dep(); break;

      case 2: cr.check(); break;

      case 3: cr.with_c(); break;

      case 4: cr.display(); break;

      case 5: break;

      default: System.out.println("wrong option");
               break;
      }
    } while (cch != 5);
  }
  else System.out.println("Wrong!");
  }
}
```