```
import java.io.FileInputStream;
import java.util.Random;
import java.util.Scanner;

class Player
{
    private String firstName;
    private String lastName;
    private int score;

    public String getFirstName()
    {
        return firstName;
    }

    public String getLastName()
    {
        return lastName;
    }

    public int getScore()
    {
        return score;
    }

    public void setFirstName(String firstName)
    {
        this.firstName = firstName;
    }

    public void setLastName(String lastName)
    {
        this.lastName = lastName;
    }

    public void setScore(int score)
    {
        this.score = score;
    }
}

abstract class Question
{
   private String question;
   private int points;
   private String answer;
   public int count;
    public String getAnswer() {
        return answer;
    }

    public void setAnswer(String answer) {
        this.answer = answer;
    }

   public String getQuestion()
   {
        return question;
   }
   public int getPoints()
   {
        return points;
   }
   public void setQuestion(String question)
   {
        this.question = question;
   }
   public void setPoints(int points)
   {
        this.points = points;
   }
```

```
   abstract public void read(FileInputStream fin, Player p);
}
class QuestionTF extends Question
{
    public void read(FileInputStream fin, Player p)
    {
        try
        {
            int x=0;
            char c='a';
            String temp="";
            while(true)
            {
               x=fin.read();
               c = (char)x;
               if(c=='\n')
                   break;
               temp = temp+""+c;
            }
            temp = temp.trim();
            setPoints(Integer.parseInt(temp));
            temp="";
            x=fin.read();
            c=(char)x;
            while(c!='\n'&&x>0)
            {
                temp=temp+""+c;
                x = fin.read();
                c=(char)x;
            }
            temp = temp.trim();
            setQuestion(temp);
            temp="";
            x=fin.read();
            c=(char)x;
            while(c!='\n'&&x>0)
            {
                temp=temp+""+c;
                x = fin.read();
                c=(char)x;
            }
            temp = temp.trim();
            setAnswer(temp);
        }
        catch (Exception e)
        {
            System.err.println(""+e);
        }
    }
    public void check()
    {

    }
}
class QuestionMC extends Question
{

    public void read(FileInputStream fin, Player p)
    {
        try
        {
            int x=0;
            char c='a';
            String temp="";
            while(true)
            {
               x=fin.read();
               c = (char)x;
               if(c=='\n')
                   break;
```

```
                temp = temp+""+c;
            }
            temp = temp.trim();
            setPoints(Integer.parseInt(temp));
            temp="";
            x=fin.read();
            c=(char)x;
            while(c!='\n')
            {
                temp=temp+""+c;
                x = fin.read();
                c=(char)x;
            }
            temp = temp.trim();
            setQuestion(temp);
            temp="";
            x=fin.read();
            c=(char)x;
            while(c!='\n'&&x>0)
            {
                temp=temp+""+c;
                x = fin.read();
                c=(char)x;
            }
            temp = temp.trim();
            String option="";
            int n = Integer.parseInt(temp);
            for(int i=0;i<n;i++)
            {
                temp="";
                x=fin.read();
                c=(char)x;
                while(c!='\n'&&x>0)
                {
                    temp=temp+""+c;
                    x = fin.read();
                    c=(char)x;
                }
                option =  option+"\n("+(char)(65+i) +") "+ temp;
            }
            //System.out.println(getQuestion()+""+option);
            setQuestion(getQuestion()+""+option+"\n");
            temp="";
            x=fin.read();
            c=(char)x;
            while(c!='\n'&&x>0)
            {
                temp=temp+""+c;
                x = fin.read();
                c=(char)x;
            }
            temp = temp.trim();
            setAnswer(temp);
        }
        catch (Exception e)
        {
            System.err.println(""+e);
        }
    }
    public void check()
    {

    }

}
class QuestionSA extends Question
{
    public void read(FileInputStream fin, Player p)
    {
        try
        {
```

```
            int x=0;
            char c='a';
            String temp="";
            while(true)
            {
               x=fin.read();
               c = (char)x;
               if(c=='\n')
                   break;
               temp = temp+""+c;
            }
            temp = temp.trim();
            setPoints(Integer.parseInt(temp));
            temp="";
            x=fin.read();
            c=(char)x;
            while(c!='\n')
            {
                temp=temp+""+c;
                x = fin.read();
                c=(char)x;
            }
            temp = temp.trim();
            setQuestion(temp);
            temp="";
            x=fin.read();
            c=(char)x;
            while(c!='\n'&&x>0)
            {
                temp=temp+""+c;
                x = fin.read();
                c=(char)x;
            }
            temp = temp.trim();
            setAnswer(temp);
        }
        catch (Exception e)
        {
            System.err.println(""+e);
        }
    }
    public void check()
    {

    }
}
class QuizBowl
{
   public static void main(String args[])
   {
       try
       {
           Player p = new Player();
           System.out.println("What is your first name?");
           Scanner scan= new Scanner(System.in);
           p.setFirstName(scan.next());
           System.out.println("What is your last name?");
           p.setLastName(scan.next());
           System.out.println("What files stores your Questions?");
           String file= scan.next();
           FileInputStream fin = new FileInputStream("C:\\Users\\HP-PC\\Desktop\\A5\\"+file);
           int x=0;
           String nQue="";
           try {
            while(true)
           {
               x=fin.read();
               if((char)x=='\n')
                   break;
               char c = (char)x;
//               System.out.print(c);
```

```
            nQue= nQue+""+c;
        }
        } catch (Exception e) {
            System.err.println(""+e);
        }
        nQue= nQue.trim();
        int n = Integer.parseInt(nQue);
        int queN=0;
        //System.out.println("HELLLEOO");
        while(true)
        {
            try
            {
               System.out.println("How Many questions whould you like to (out of "+n+")");
               queN=scan.nextInt();
               if(queN>n)
               {
                   System.out.println("Sorry, thats too many!!");
                   queN=0;
               }
               else if(queN<=0)
               {
                   System.out.println("Sorry, not zero atleast or negative!!");
                   queN=0;
               }
               else
               {
                   break;
               }
             }
             catch (Exception e)
             {
                 System.out.println("Sorry, That is not valid");
                 break;
             }
        }
        Question que[] = new Question[Integer.parseInt(nQue)];
        int i=0;
        int k=1;
        while(x>=0)
        {
            x= fin.read();
            String qType = ""+(char)x+""+(char)fin.read()+""+(char)fin.read();
            if(qType.equals("MC "))
            {
                que[i++]= new QuestionMC();
                que[i-1].read(fin, p);
            }
            else if(qType.equals("TF "))
            {
                que[i++]= new QuestionTF();
                que[i-1].read(fin, p);
            }
            else if(qType.equals("SA "))
            {
                que[i++]= new QuestionSA();
                que[i-1].read(fin, p);
            }
            k++;
        }
        for(int j=0;j<queN;j++)
        {
            Random r=new Random();
            int randomCount = r.nextInt(n);
            if(que[randomCount].count==0)
            {
             System.out.println("Point :- "+ que[randomCount].getPoints());
             System.out.println("Question :- "+que[randomCount].getQuestion());
             String reply=scan.next();
             String temp = que[randomCount].getAnswer();
             if(reply.equals(temp))
```

```
                    {
                        System.out.println("Correct ! You get "+que[randomCount].getPoints()+"
                        points");
                        p.setScore(que[randomCount].getPoints()+p.getScore());
                    }
                    else if(reply.toLowerCase().equals("skip"))
                    {
                        System.out.println("Okay! You Can Skip this question");
                        p.setScore(p.getScore()+0);
                    }
                    else
                    {
                        System.out.println("InCorrect ! You lost
                        "+que[randomCount].getPoints()+" points");
                        p.setScore(p.getScore()-que[randomCount].getPoints());
                    }
                   que[randomCount].count=1;
                  }
                  else
                  {
                      j--;
                  }
                 }
            System.out.println(p.getFirstName()+" "+p.getLastName()+", your game is over!");
            System.out.println("Your final Score is "+p.getScore()+" points.");
            System.out.println("Better Luck next time!");
        }
         catch(Exception e)
         {

         }
    }
}
```