

IBM CAREER EDUCATION



MAIN PROJECT

DOMAIN NAME: JAVA

ONLINE TEST SYSTEM

SUBMITTED BY:-

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II Year – (BDA) ‘B’ Section

Ganpat University, Ahmedabad

UNDER GUIDANCE OF & SUBMITTED TO :-

Mr. A. Saai Sanjeev Achaarya

(IBM SOFTWARE TECHNICAL TRAINER)



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CERTIFICATE

**This is to Certify that the project report
entitled Online Test System is
completed by Poojan Kulshreshtha of
sem 3-‘B’ as per the requirements of
IBM CAREER EDUCATION during
session 2019-2020.(2nd Year)**

Student's Signature

IBM Trainer Signature

HoD Signature

CERTIFICATE

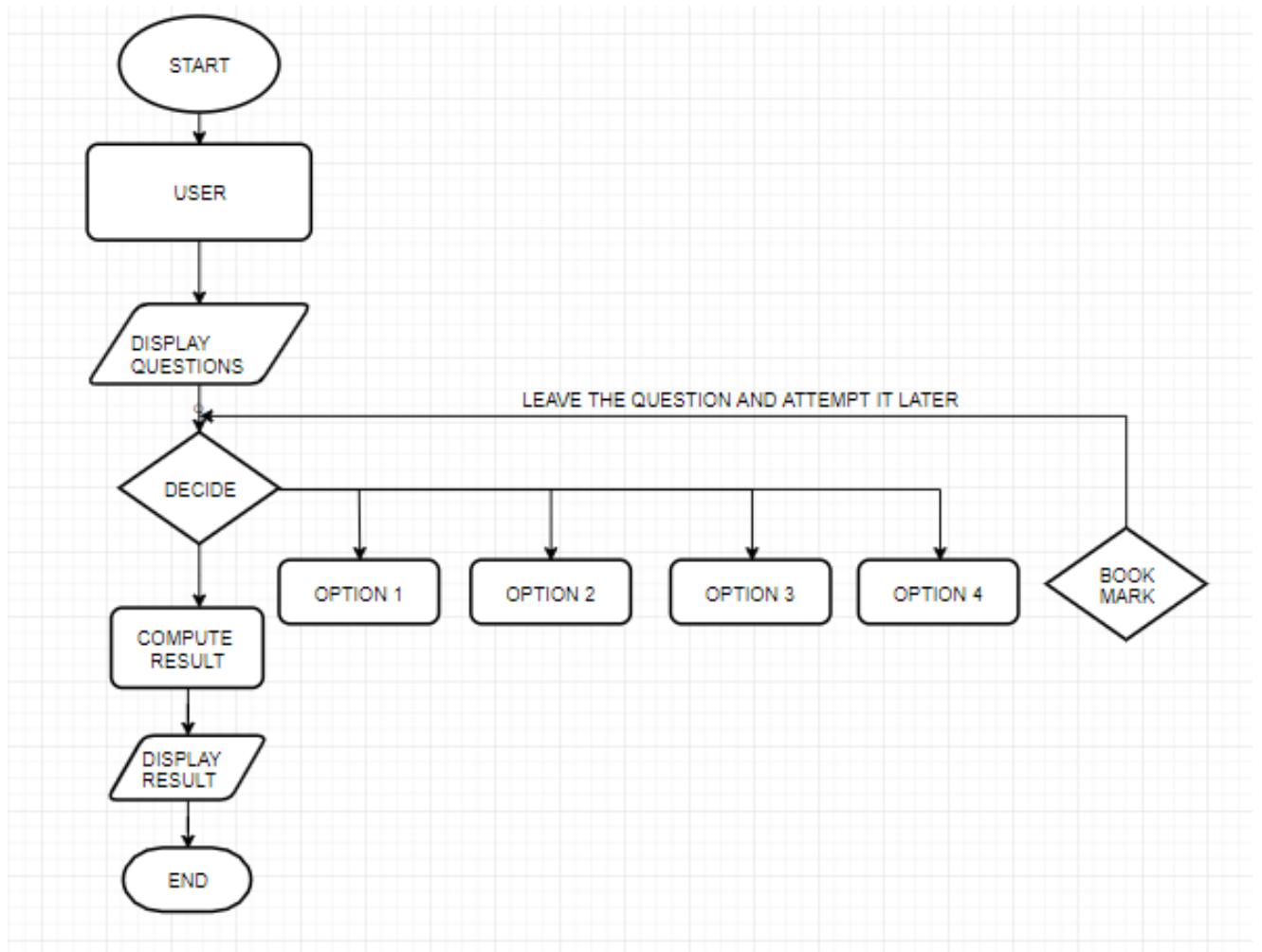
**This is to Certify that the project report
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2020.(2nd Year)**

Student's Signature

IBM Trainer Signature

HoD Signature

FLOWCHART



ACKNOWLEDGEMENT

I take this opportunity to express few words in gratitude and respect to all those who helped me in the completion of this project.

In this regard first of all I would like to express deep gratitude to Mr A. Saai Sanjeev Achaarya (IBM Software Technical Trainer) for sharing his precious knowledge, time and innovative ideas for the successful execution of the assigned project. He always guided us for the right track to be followed for all the system analysis section of this project.

PROJECT PROFILE

| | |
|------------------------------------|--|
| NAME OF THE PROJECT | Online Test System |
| PURPOSE | |
| DEVELOPED BY | Poojan Kulshreshtha Jainam Shah |
| PROJECT GUIDES | Mr. A. Saai Sanjeev Achaarya |
| SUBMITTED TO | Mr. A. Saai Sanjeev Achaarya |
| TOOLS AND TECHNOLOGIES USED | |
| SOFTWARE SPECIFICATIONS | |
| OPERATING SYSTEM | Windows 10 |
| PROGRAMMING LANGUAGE | JAVA |
| DOCUMENTATION | Microsoft Word |
| ENVIRONMENT | Java Virtual Machine |
| HARDWARE SPECIFICATIONS | |
| PROCESSOR | Intel(R) Core(TM) i3-7020U CPU @ 2.30GHZ |
| RAM | 8GB RAM |
| MONITOR | 14'' COLOR |
| HARD DISK | |

INTRODUCTION

The purpose of on-line test simulator is to take online test in an efficient manner and no time wasting for checking the paper.

The main objective of on-line test simulator is to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves lot of time but also gives fast results.

For students they give papers according to their convenience and time and there is no need of using extra thing like paper, pen etc.

DESCRIPTION

Scope of this project is very broad in terms of other manually taking exams.

Few of them are: - This can be used in educational institutions as well as in corporate world.

Can be used anywhere any time as it is a web based application (user Location doesn't matter).

No restriction that examiner has to be present when the candidate takes the test.

FEATURES

- 1. Secure**
- 2. Easy to use**
- 3. Reliable and accurate**
- 4. No need of examiner**

MERITS

In comparison to the present manual exam system the proposed system will be less time consuming and is more efficient.

- **Physical presence at a given location is absolutely not necessary**
- **No time is spent on evaluation**
- **Results are available instantly**
- **Can be easily accessed 24/7 over the open test period**
- **Easy Accessibility.**
- **Available at a reduced cost.**
- **Accuracy in checking the answer, calculating result.**
- **User friendly.**
- **Secure because of authentication.**
- **Online exams - Convenience, security and flexibility.**
- **Exams can be assembled and previewed, edited and published instantly**

DE-MERITS

Some of the de-merits related to this system are:-

- **It has to be kept in mind that students will take the exam on their own device in their own time with nobody to check up on them.**
- **One has to ask questions which are not easily to be retrieved from books or the internet or one can add a timer to each question so there is no time to search for the answer.**
- **Open text questions are possible, but they don't auto-grade, so you have to check them yourself.**
- **Subjective questions will not be suitable for this system.**
- **It is highly dependent on honour system as students can cheat during the exam or take turns while attempting the questions.**
- **Online examination system depends on the internet connection along with software. If any of them fails, students will not be able to give the exam, and progress of examination data might be deleted, if system is shut down suddenly.**

PICTURES OF ONLINE TEST SYSTEM

- ONLINE TEST SYSTEM

| Add Questions | |
|-----------------------|-----------------------|
| Level: | Beginner Level ▾ |
| Question : | ASP stands for |
| Answer1 : | Active Server Pages |
| Answer2 : | Alternate Server Page |
| Answer3 : | Active software page |
| Answer4 : | Others |
| Answer(1-4) : | 1 |
| <div>Done Clear</div> | |

- **EXAM HALL OF ONLINE TEST SYSTEM**



- **LIST OF QUESTIONS**



• BOOKMARKING QUESTIONS

To add a guide to your list of favourites, press the 'Add to favourites' button found at the top of each guide, as shown below:



Introduction to Understanding People

2 Emotional and Social Intelligence

Questions in the Understanding People construct aim to assess a candidate's em

My Favourites Navigation

▼ Favourite Questions (8)

- Section 1 - Logical Reasoning and Problem Solving (5)
- Section 2 - Understanding People (1)
- Section 3 - Non-verbal Reasoning (1)
- Eureka! Section 1 (0)
- Eureka! Section 2 (0)
- Eureka! Section 3 (1)
- Instructions

▼ Favourite Guides (1)

- General Guides (1)
- Section 1 Guides (0)
- Section 2 Guides (0)
- Section 3 Guides (0)
- Instructions

AIM OF THE **PROGRAM**

To create an online test system which:-

- **Reduces the hectic job of assessing the answers given by the candidates manually**
- **Responses or the answers given by the candidates can be checked instantly and automatically**
- **The questions are asked in form of MCQ**
- **Questions can be bookmarked to attempt them in future before the exam ends**

PROGRAM CODE

```
//ONLINE TEST SYSTEM
/*Online Java Paper Test*/
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;

class OnlineTest extends JFrame implements ActionListener
{
    JLabel l;
    JRadioButton jb[]=new JRadioButton[5];
    JButton b1,b2;
    ButtonGroup bg;
    int count=0,current=0,x=1,y=1,now=0;
    int m[]=new int[10];
    OnlineTest(String s)
    {
        super(s);
        l=new JLabel();
        add(l);
        bg=new ButtonGroup();
        for(int i=0;i<5;i++)
        {
            jb[i]=new JRadioButton();
            add(jb[i]);
            bg.add(jb[i]);
        }
        b1=new JButton("Next");
        b2=new JButton("Bookmark");
        b1.addActionListener(this);
        b2.addActionListener(this);
        add(b1);add(b2);
        set();
        l.setBounds(30,40,450,20);
    }
}
```



```

        jb[0].setBounds(50,80,100,20);
        jb[1].setBounds(50,110,100,20);
        jb[2].setBounds(50,140,100,20);
        jb[3].setBounds(50,170,100,20);
        b1.setBounds(100,240,100,30);
        b2.setBounds(270,240,100,30);

        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setLayout(null);
        setLocation(250,100);
        setVisible(true);
        setSize(600,350);
    }
    public void actionPerformed(ActionEvent e)
    {
        if(e.getSource()==b1)
        {
            if(check())
                count=count+1;
            current++;
            set();
            if(current==9)
            {
                b1.setEnabled(false);
                b2.setText("Result");
            }
        }
        if(e.getActionCommand().equals("Bookmark"))
        {
            JButton bk=new JButton("Bookmark"+x);
            bk.setBounds(480,20+30*x,100,30);
            add(bk);
            bk.addActionListener(this);
            m[x]=current;
            x++;
            current++;
            set();
        }
    }

```

```

        if(current==9)
            b2.setText("Result");
        setVisible(false);
        setVisible(true);
    }
    for(int i=0,y=1;i<x;i++,y++)
    {
        if(e.getActionCommand().equals("Bookmark"+y))
        {
            if(check())
                count=count+1;
            now=current;
            current=m[y];
            set();
            ((JButton)e.getSource()).setEnabled(false);
            current=now;
        }
    }

    if(e.getActionCommand().equals("Result"))
    {
        if(check())
            count=count+1;
        current++;
        //System.out.println("correct ans="+count);
        JOptionPane.showMessageDialog(this,"correct
ans="+count);
        System.exit(0);
    }
}
void set()
{
    jb[4].setSelected(true);
    if(current==0)
    {
        l.setText("Que1: Which type of inheritance is not
supported in java");
    }
}

```

```
        jb[0].setText("multiple");jb[1].setText("multilevel");jb[2].s  
etText("hybrid");jb[3].setText("hierarchical");
```

```
    }
```

```
    if(current==1)
```

```
    {
```

```
        l.setText("Que2: Instance of class is known as");
```

```
        jb[0].setText("class");jb[1].setText("object");jb[2].setText(  
"recursion");jb[3].setText("datatype");
```

```
    }
```

```
    if(current==2)
```

```
    {
```

```
        l.setText("Que3: which of the following is NOT a  
non-access modifier");
```

```
        jb[0].setText("static");jb[1].setText("final");jb[2].setText("  
public");jb[3].setText("abstract");
```

```
    }
```

```
    if(current==3)
```

```
    {
```

```
        l.setText("Que4: Which of the following is  
considered as the first truly object-oriented programming  
language");
```

```
        jb[0].setText("C");jb[1].setText("SmallTalk");jb[2].setText  
("C++");jb[3].setText("Simula");
```

```
    }
```

```
    if(current==4)
```

```
    {
```

```
        l.setText("Que5: Different behaviour of objects at  
different instances is known as");
```

```
        jb[0].setText("abstraction");jb[1].setText("inheritance");jb[  
2].setText("encapsulation");jb[3].setText("polymorphism");
```

```
    }
```

```
    if(current==5)
```

```

        {
            l.setText("Que6: Hiding our irrelevant data is
known as");

            jb[0].setText("abstraction");jb[1].setText("encapsulatiion")
;jb[2].setText("inheritance");jb[3].setText("polymorphism");
        }
        if(current==6)
        {
            l.setText("Que7: Protecting of data is known
as");

            jb[0].setText("inheritance");jb[1].setText("abstraction");jb[
2].setText("encapsulation");jb[3].setText("polymorphism");
        }
        if(current==7)
        {
            l.setText("Que8:One property of object is
acquiring to another property of object");

            jb[0].setText("abstraction");jb[1].setText("polymorphism")
;jb[2].setText("inheritance");jb[3].setText("encapsulation");

        }
        if(current==8)
        {
            l.setText("Que9: What is known as the
implementation of the service requested by the message");

            jb[0].setText("method");jb[1].setText("main");jb[2].setText
("class");jb[3].setText("constructor");
        }
        if(current==9)
        {
            l.setText("Que10: What is known as a request for
a service");

```

```

        jb[0].setText("typecasting");jb[1].setText("library");jb[2].s
        etText("parsing");jb[3].setText("message");
    }
    l.setBounds(30,40,450,20);
    for(int i=0,j=0;i<=90;i+=30,j++)
        jb[j].setBounds(50,80+i,200,20);
}
boolean check()
{
    if(current==0)
        return(jb[0].isSelected());
    if(current==1)
        return(jb[1].isSelected());
    if(current==2)
        return(jb[2].isSelected());
    if(current==3)
        return(jb[1].isSelected());
    if(current==4)
        return(jb[3].isSelected());
    if(current==5)
        return(jb[0].isSelected());
    if(current==6)
        return(jb[2].isSelected());
    if(current==7)
        return(jb[2].isSelected());
    if(current==8)
        return(jb[0].isSelected());
    if(current==9)
        return(jb[3].isSelected());
    return false;
}
public static void main(String s[])
{
    new OnlineTest("Online Test Of Java");
}
}

```

EXPLANATION

ABOUT PROJECT

The online test created for taking online test has following stages:-

- 1. Test**
- 2. Result**

TEST:

**Test page is the most creative and important page in this project.
It consists of 2 modules namely:**

- 1. Option selection**
- 2. Utilities:-**

Option Selection:-

From the given choices the candidate can select his option for the particular questions and answer it

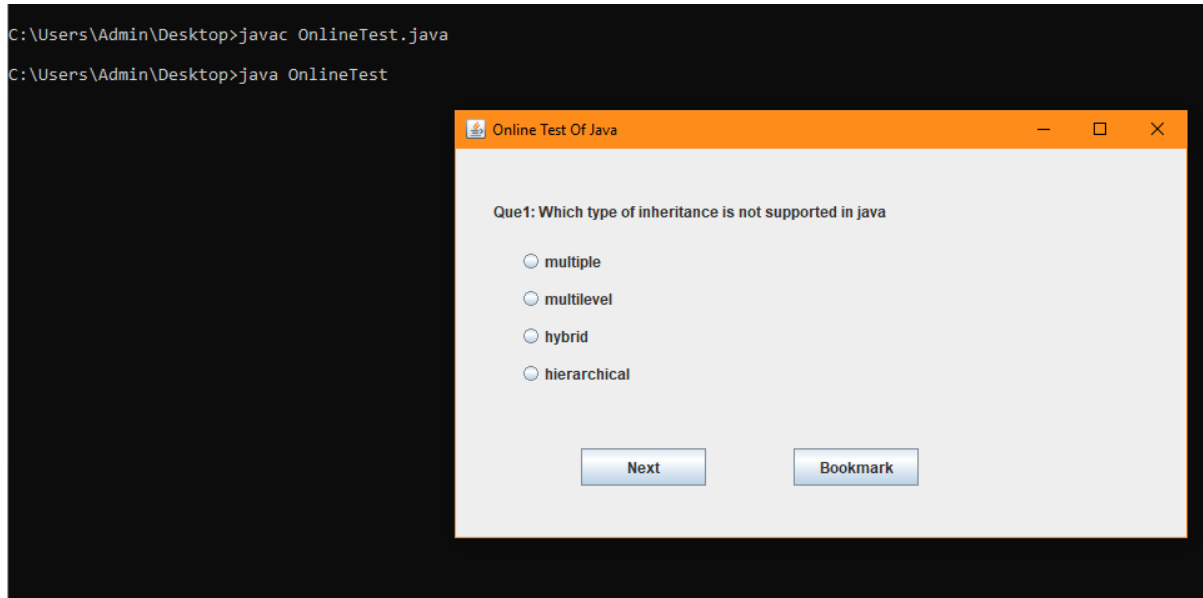
Utilities:-

It includes Skip and come back to the question afterwards if needed.

Gives the list of attempted and unattempted questions and can go to any question directly and can either attempt or change the answer of the already attempted question.

OUTPUT

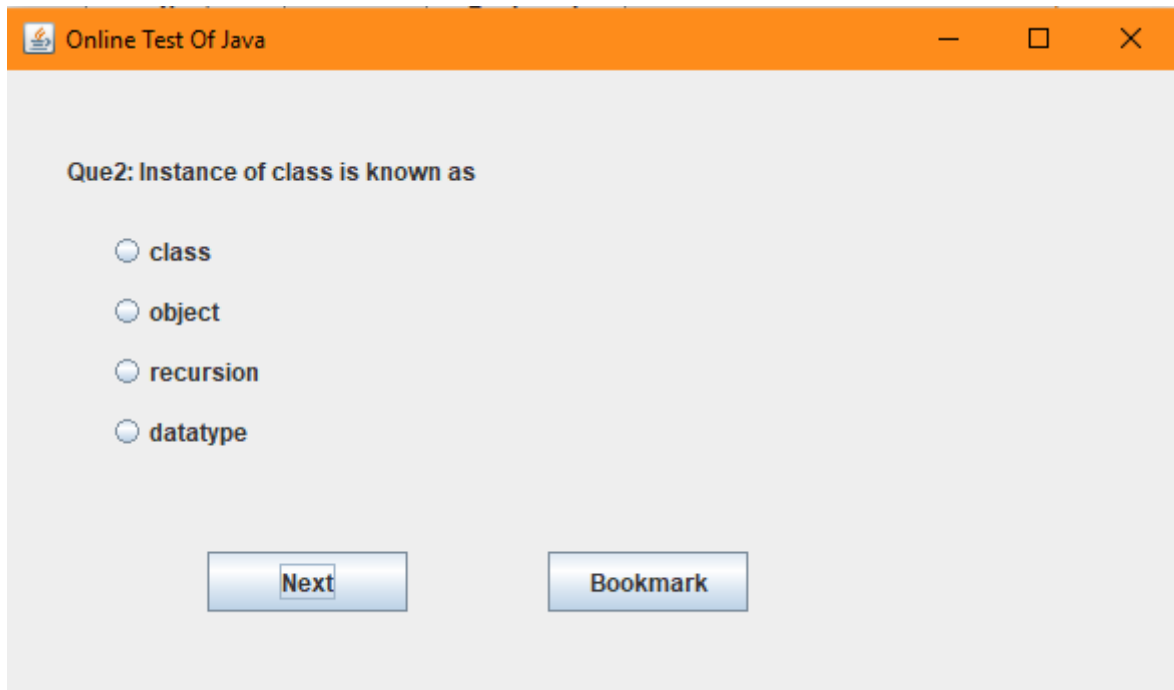
AS SOON AS PROGRAM STARTS RUNNING A BOX POPS UP



THE FIRST QUESTION OF THE PROGRAM



SECOND QUESTION OF THE PROGRAM



Online Test Of Java

Que2: Instance of class is known as

- ☐ class
- ☐ object
- ☐ recursion
- ☐ datatype

Next Bookmark

KEEPING IT AS A BOOKMARK TO ATTEMPT IT IN FUTURE



Online Test Of Java

Que3: which of the following is NOT a non-access modifier

Bookmark1

- ☐ static
- ☐ final
- ☐ public
- ☐ abstract

Next Bookmark

THIRD QUESTION OF THE PROGRAM

Online Test Of Java

Que3: which of the following is NOT a non-access modifier

☐ static

☐ final

☐ public

☐ abstract

Bookmark1

Next

Bookmark

FOURTH QUESTION OF THE PROGRAM

Online Test Of Java

Que4: Which of the following is considered as the first truly object-oriented pr...

☐ C

☒ SmallTalk

☐ C++

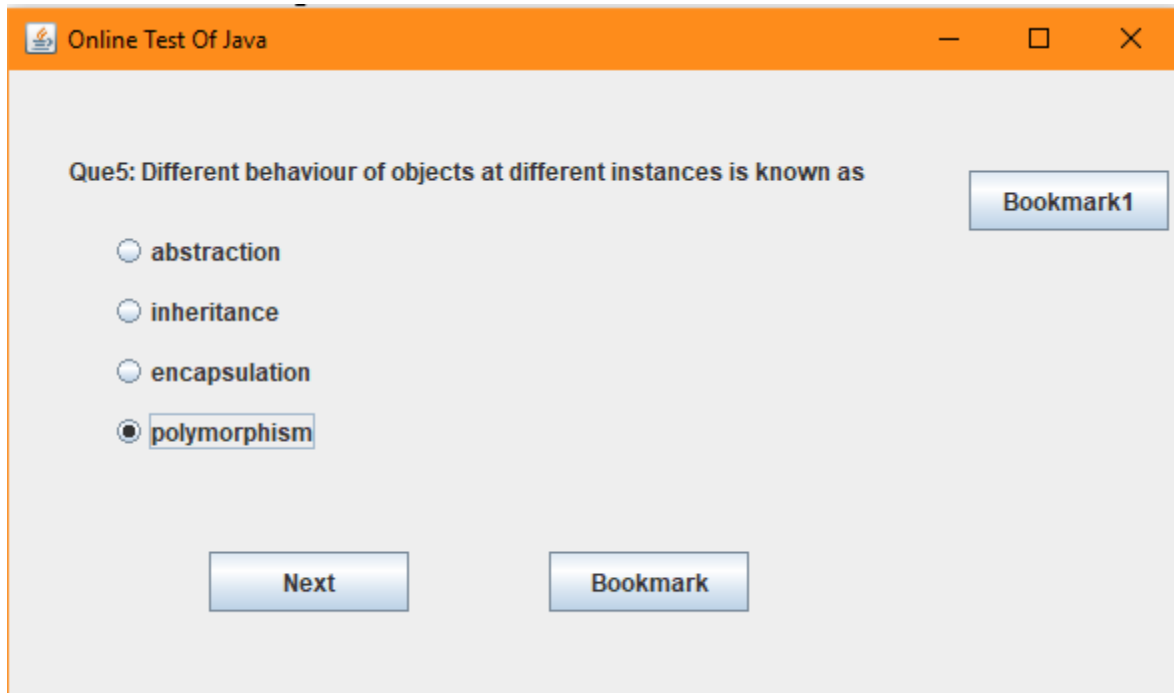
☐ Simula

Bookmark1

Next

Bookmark

FIFTH QUESTION OF THE PROGRAM



Online Test Of Java

Que5: Different behaviour of objects at different instances is known as

☐ abstraction

☐ inheritance

☐ encapsulation

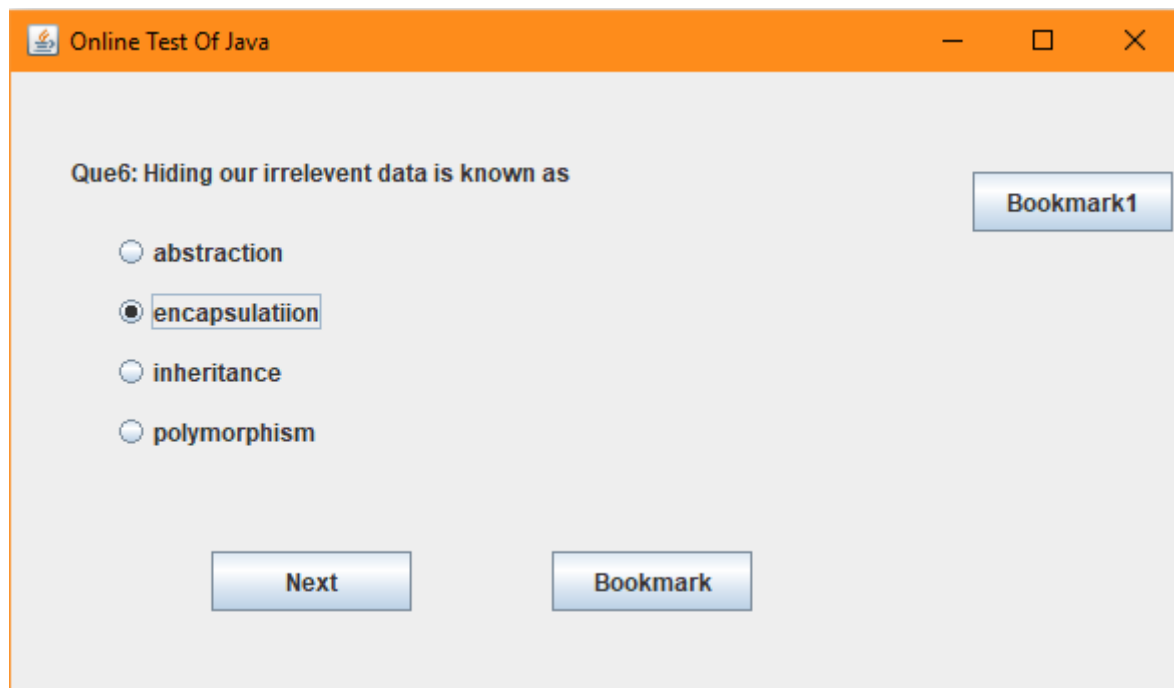
☒ polymorphism

Next

Bookmark

Bookmark1

SIXTH QUESTION OF THE PROGRAM



Online Test Of Java

Que6: Hiding our irrelevant data is known as

☐ abstraction

☒ encapsulatiion

☐ inheritance

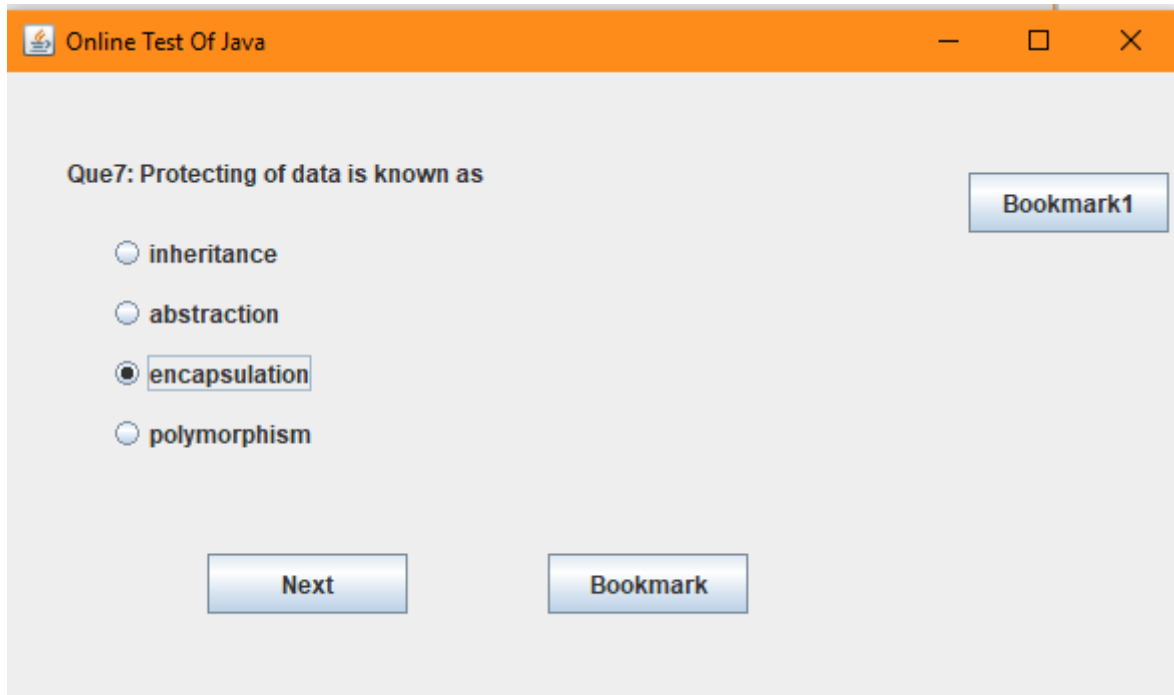
☐ polymorphism

Next

Bookmark

Bookmark1

SEVENTH QUESTION OF THE PROGRAM



Online Test Of Java

Que7: Protecting of data is known as

☐ inheritance

☐ abstraction

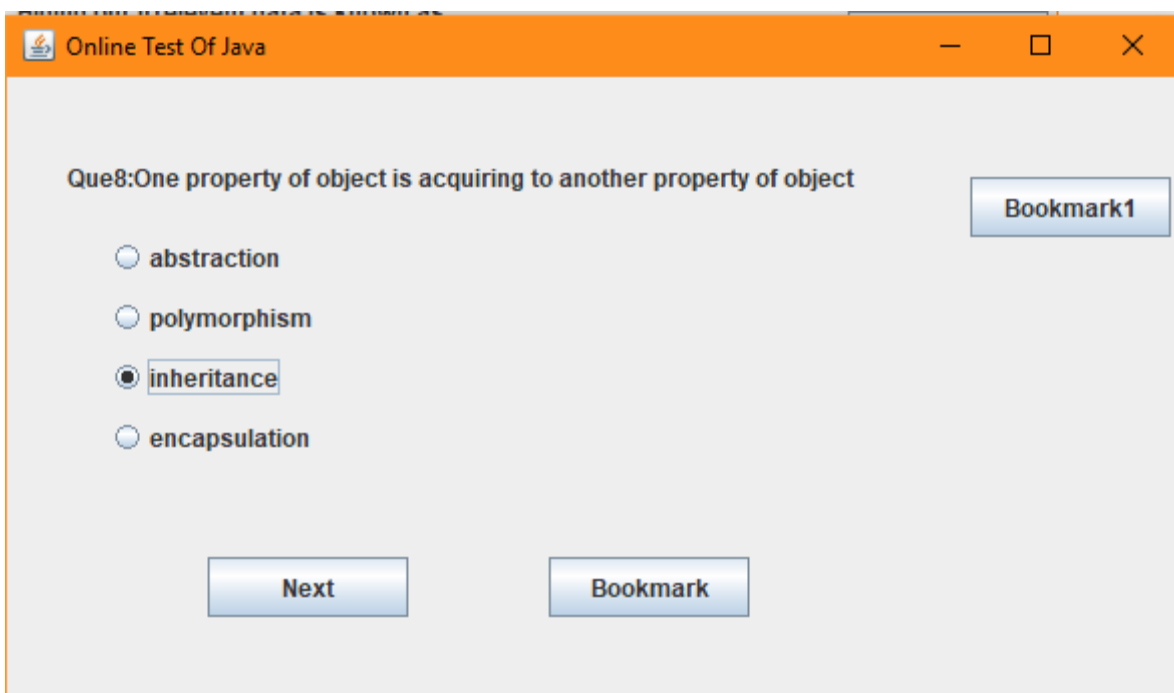
☒ encapsulation

☐ polymorphism

Bookmark1

Next Bookmark

EIGHTH QUESTION OF THE PROGRAM



Online Test Of Java

Que8:One property of object is acquiring to another property of object

☐ abstraction

☐ polymorphism

☒ inheritance

☐ encapsulation

Bookmark1

Next Bookmark

NINTH QUESTION OF THE PROGRAM

Online Test Of Java

Que9: What is known as the implementation of the service requested by the m...

☒ method

☐ main

☐ class

☐ constructor

Next Bookmark Bookmark1

TENTH QUESTION OF THE PROGRAM

Online Test Of Java

Que10: What is known as a request for a service

☐ typecasting

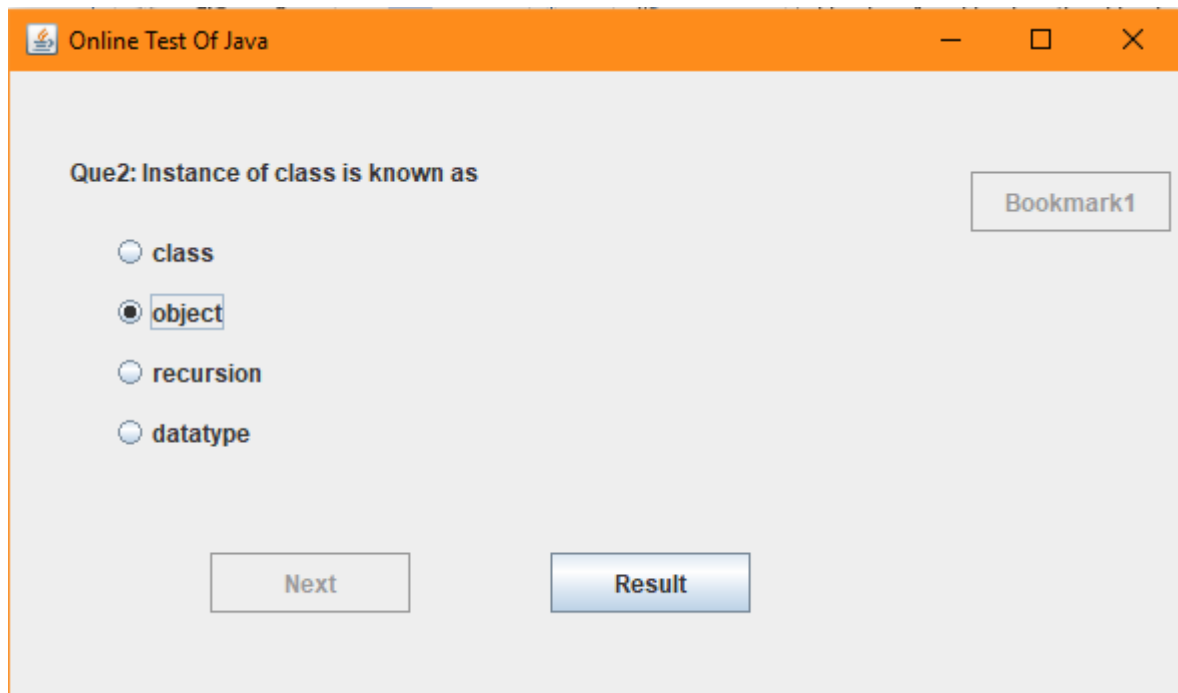
☐ library

☐ parsing

☒ message

Next Result Bookmark1

ANSWERING THE BOOKMARK QUESTION



Online Test Of Java

Que2: Instance of class is known as

Bookmark1

☐ class

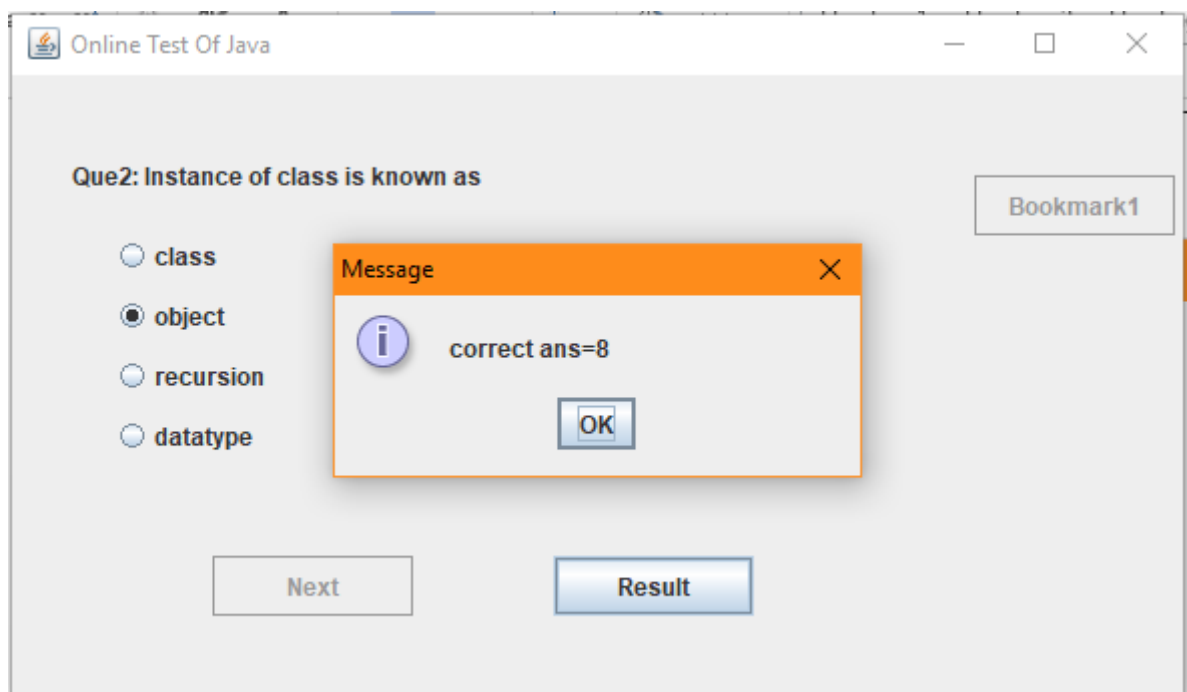
☒ object

☐ recursion

☐ datatype

Next Result

FINAL SCORE AFTER CLICKING ON RESULT



Online Test Of Java

Que2: Instance of class is known as

Bookmark1

☐ class

☒ object

☐ recursion

☐ datatype

Next Result

Message

correct ans=8

OK

BIBLIOGRAPHY

- **Wikipedia(Online Test System page)**
- **<https://www.slideshare.net>**
- **Google Images**
- **IBM Career Education Study Material for OOPJ(Object Oriented Programming JAVA)**

CONCLUSION

Thus we can conclude that online examination system is a web application whose key concept is to minimize amount of paper and convert all forms of documentation to digital form. It can observe that the information required can be obtained with ease and accuracy in computerized system. The user with minimum knowledge about computer can also be able to operate the system easily and also the system produces brief result required by management.