

SPECIAL ASSIGNMENT IN COMPUTER GRAPHICS

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ENROLLMENT NUMBER-2020CSB102

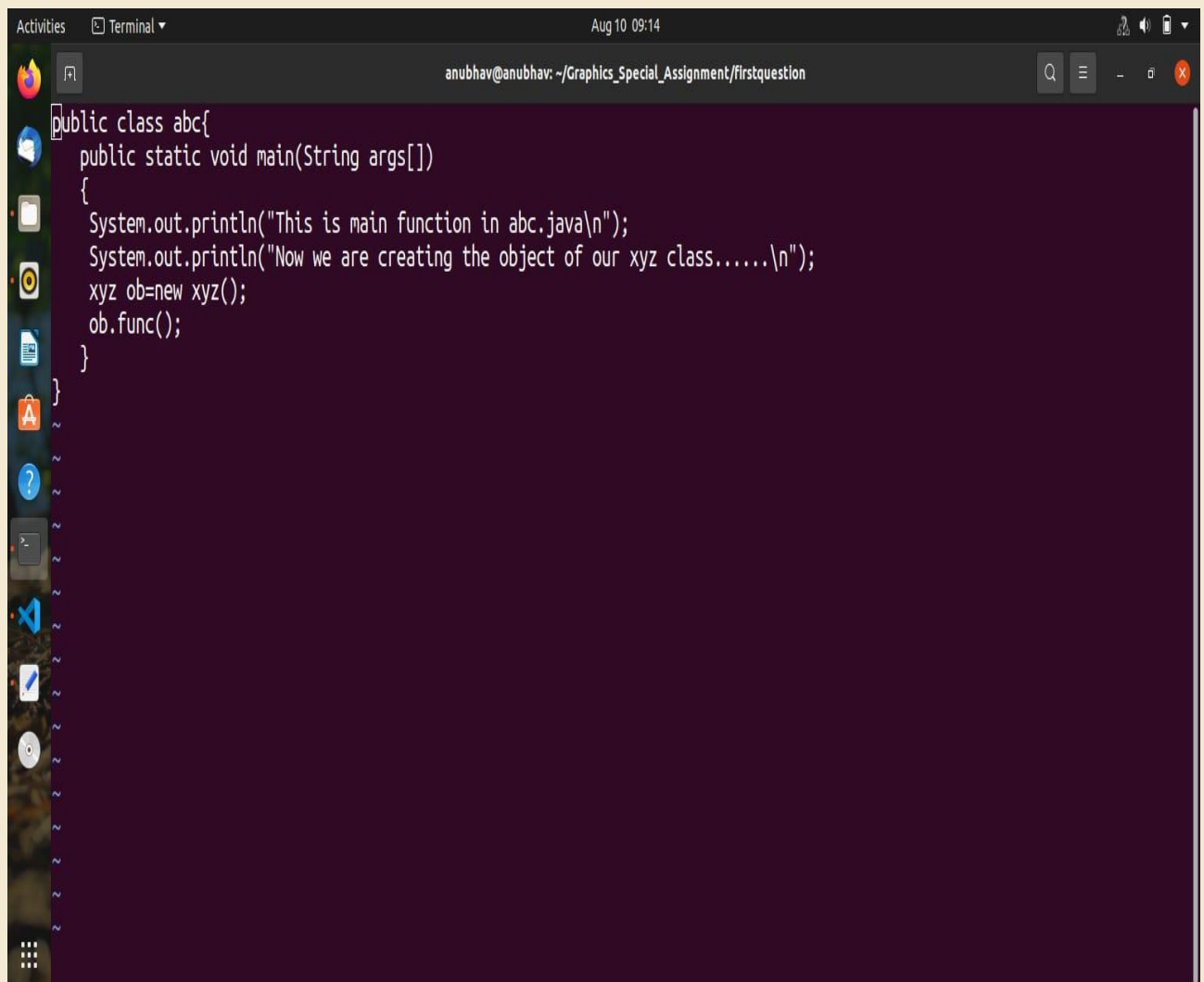
DEPARTMENT-COMPUTER SCIENCE AND
TECHNOLOGY

Subject-Special Assignment of Computer
Graphics

1.Develop a class 'First' that uses object of another class 'Second' using default package

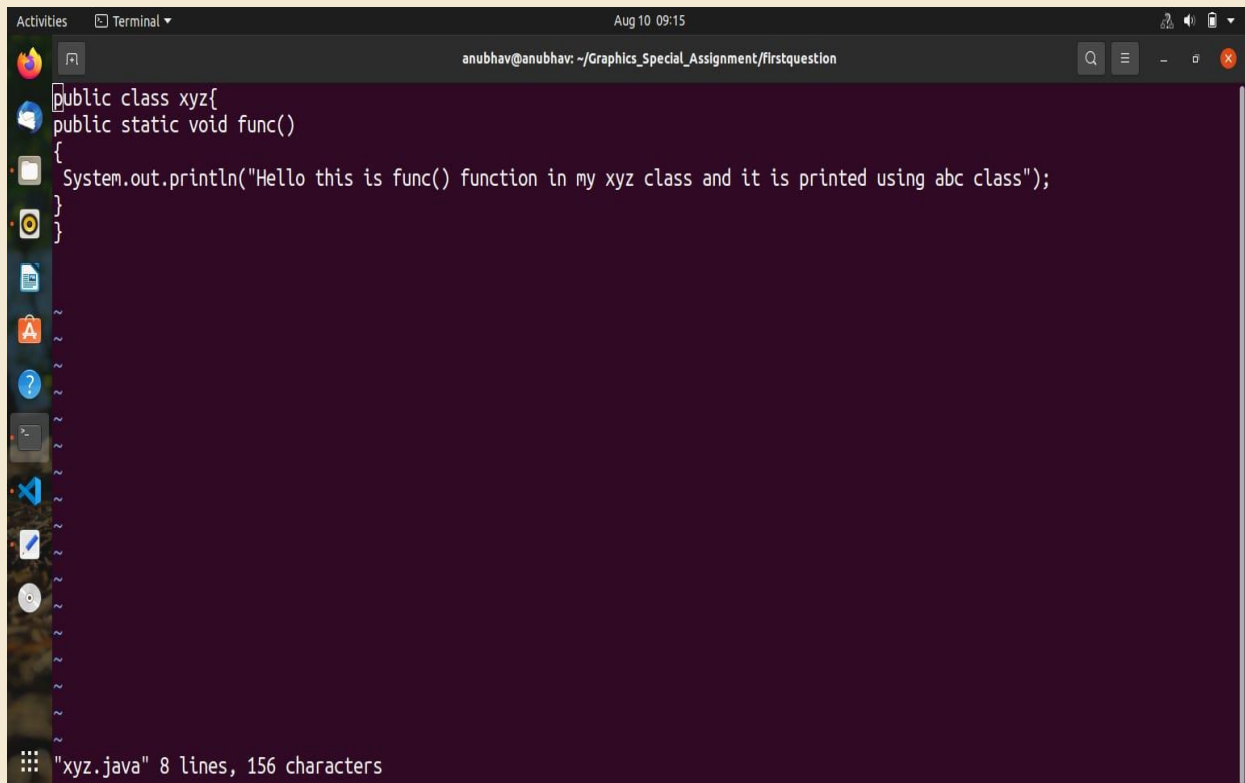
ANS-

abc.java-

A screenshot of a Linux terminal window. The title bar shows 'Activities', 'Terminal', and the date 'Aug 10 09:14'. The terminal prompt is 'anubhav@anubhav: ~/Graphics_Special_Assignment/firstquestion'. The code being typed is a Java class named 'abc' with a 'main' method. The code includes two print statements, an object creation, and a method call.

```
public class abc{
    public static void main(String args[])
    {
        System.out.println("This is main function in abc.java\n");
        System.out.println("Now we are creating the object of our xyz class.....\n");
        xyz ob=new xyz();
        ob.func();
    }
}
```

xyz.java-

A screenshot of a Linux terminal window. The title bar shows 'Activities', 'Terminal', and the date 'Aug 10 09:15'. The terminal content shows the code for a Java class named 'xyz'. The code is:

```
public class xyz{  
    public static void func()  
    {  
        System.out.println("Hello this is func() function in my xyz class and it is printed using abc class");  
    }  
}
```

 The status bar at the bottom left indicates '"xyz.java" 8 lines, 156 characters'. The terminal has a dark purple background and a light blue cursor.

```
anubhav@anubhav: ~/Graphics_Special_Assignment/firstquestion  
public class xyz{  
    public static void func()  
    {  
        System.out.println("Hello this is func() function in my xyz class and it is printed using abc class");  
    }  
}
```

"xyz.java" 8 lines, 156 characters

Output(Terminal)-

```
Activities Terminal Aug 10 09:16
anubhav@anubhav: ~/Graphics_Special_Assignment/firstquestion
anubhav@anubhav:~/Graphics_Special_Assignment/firstquestion$ vi abc.java
anubhav@anubhav:~/Graphics_Special_Assignment/firstquestion$ vi xyz.java
anubhav@anubhav:~/Graphics_Special_Assignment/firstquestion$ javac xyz.java
anubhav@anubhav:~/Graphics_Special_Assignment/firstquestion$ javac abc.java
anubhav@anubhav:~/Graphics_Special_Assignment/firstquestion$ java abc
This is main function in abc.java

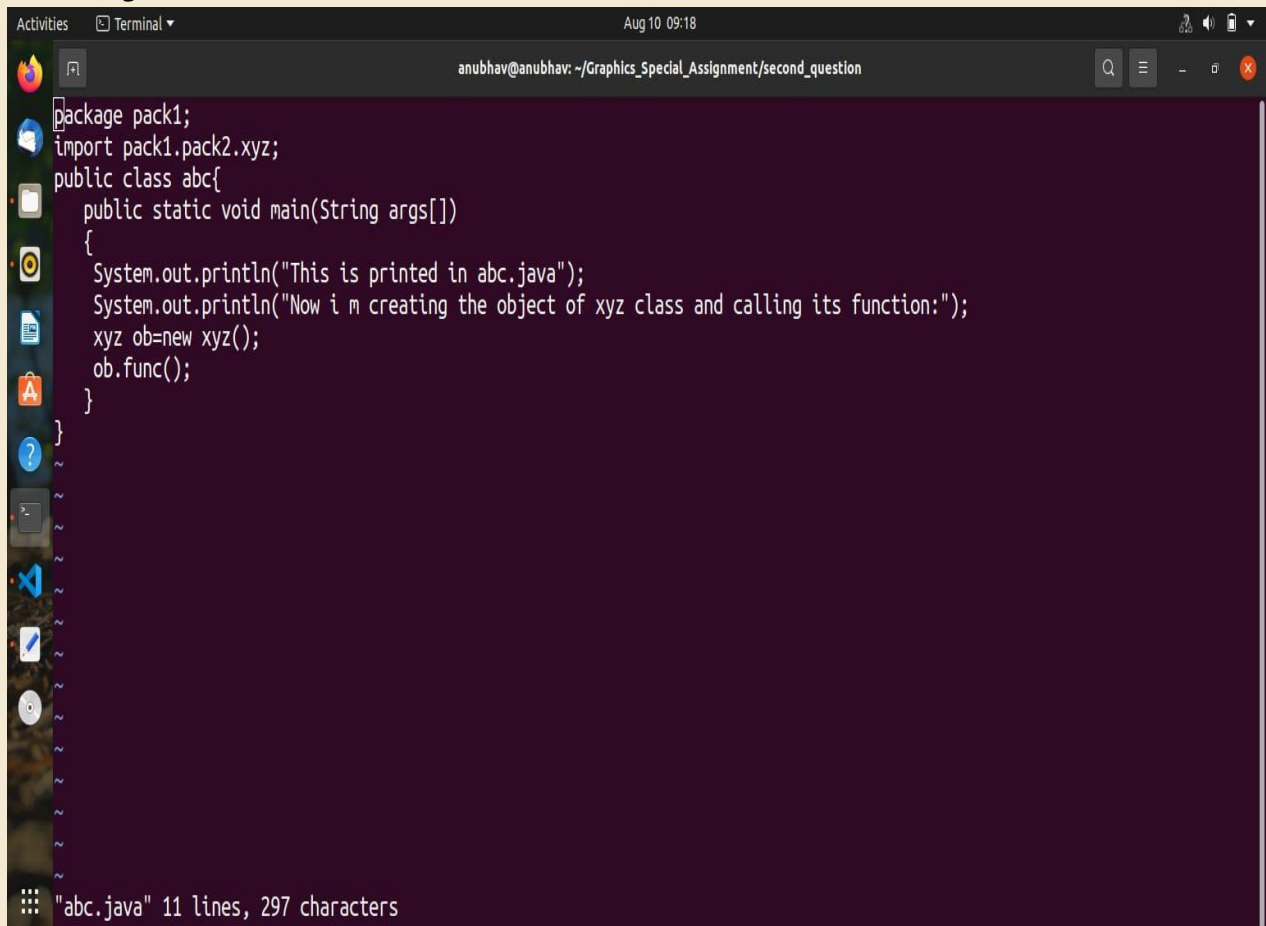
Now we are creating the object of our xyz class.....

Hello this is func() function in my xyz class and it is printed using abc class
anubhav@anubhav:~/Graphics_Special_Assignment/firstquestion$
```

2. Develop a class 'First' that uses object of another class 'Second' using user defined package

Ans-

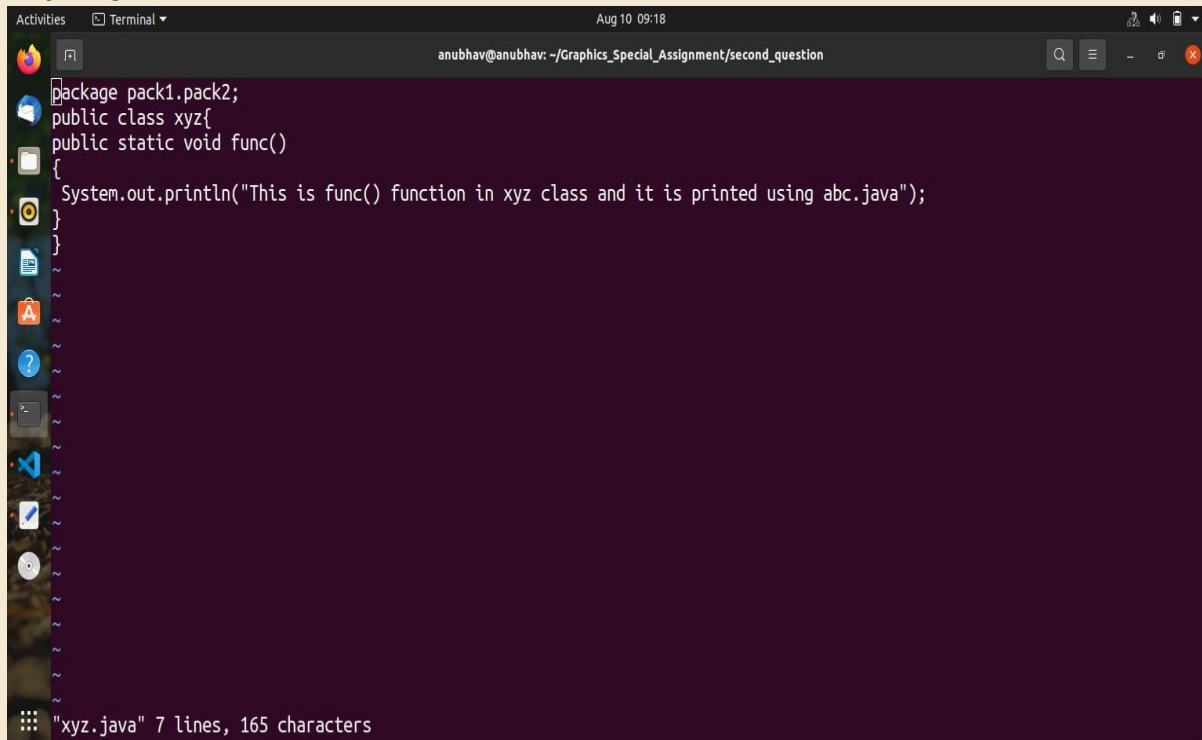
abc.java-

A screenshot of a Linux terminal window. The window title is "anubhav@anubhav: ~/Graphics_Special_Assignment/second_question". The terminal shows the code for a Java file named abc.java. The code is as follows:

```
package pack1;
import pack1.pack2.xyz;
public class abc{
    public static void main(String args[])
    {
        System.out.println("This is printed in abc.java");
        System.out.println("Now i m creating the object of xyz class and calling its function:");
        xyz ob=new xyz();
        ob.func();
    }
}
```

The terminal also shows a status bar at the bottom indicating the file size: "abc.java" 11 lines, 297 characters.

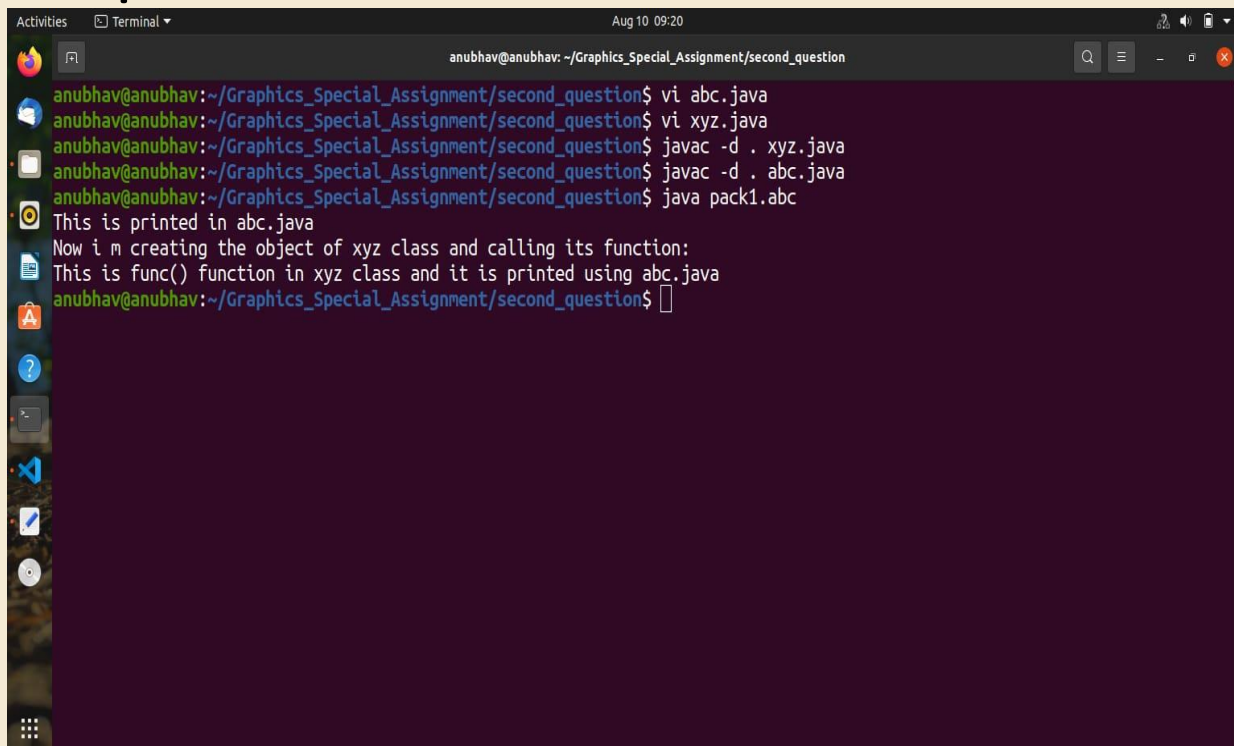
xyz.java-



```
package pack1.pack2;
public class xyz{
    public static void func()
    {
        System.out.println("This is func() function in xyz class and it is printed using abc.java");
    }
}

"xyz.java" 7 lines, 165 characters
```

Output-

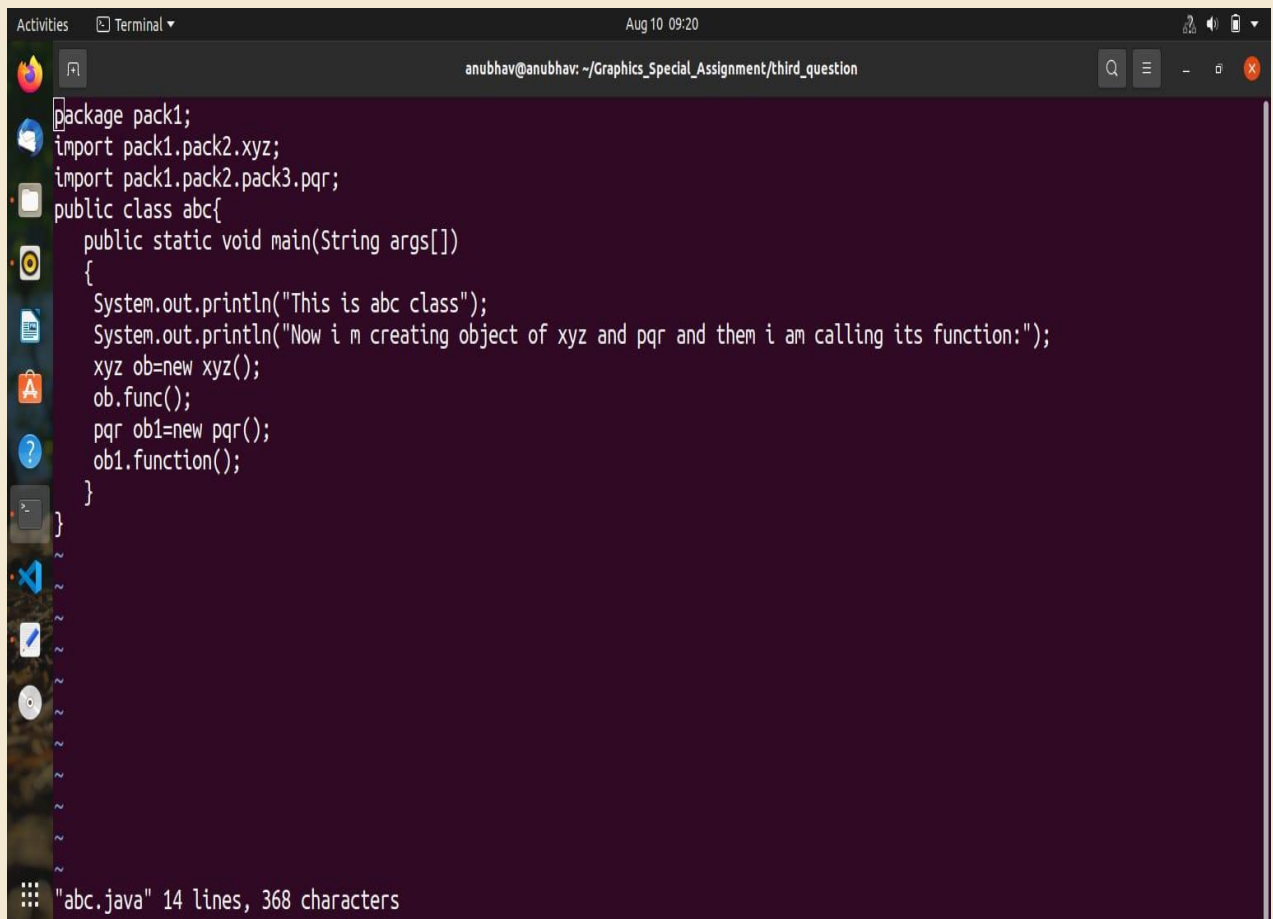


```
anubhav@anubhav:~/Graphics_Special_Assignment/second_question$ vi abc.java
anubhav@anubhav:~/Graphics_Special_Assignment/second_question$ vi xyz.java
anubhav@anubhav:~/Graphics_Special_Assignment/second_question$ javac -d . xyz.java
anubhav@anubhav:~/Graphics_Special_Assignment/second_question$ javac -d . abc.java
anubhav@anubhav:~/Graphics_Special_Assignment/second_question$ java pack1.abc
This is printed in abc.java
Now i m creating the object of xyz class and calling its function:
This is func() function in xyz class and it is printed using abc.java
anubhav@anubhav:~/Graphics_Special_Assignment/second_question$
```

3. Develop a class 'First' that uses object of another class 'Third' using user defined nested package .

Ans-

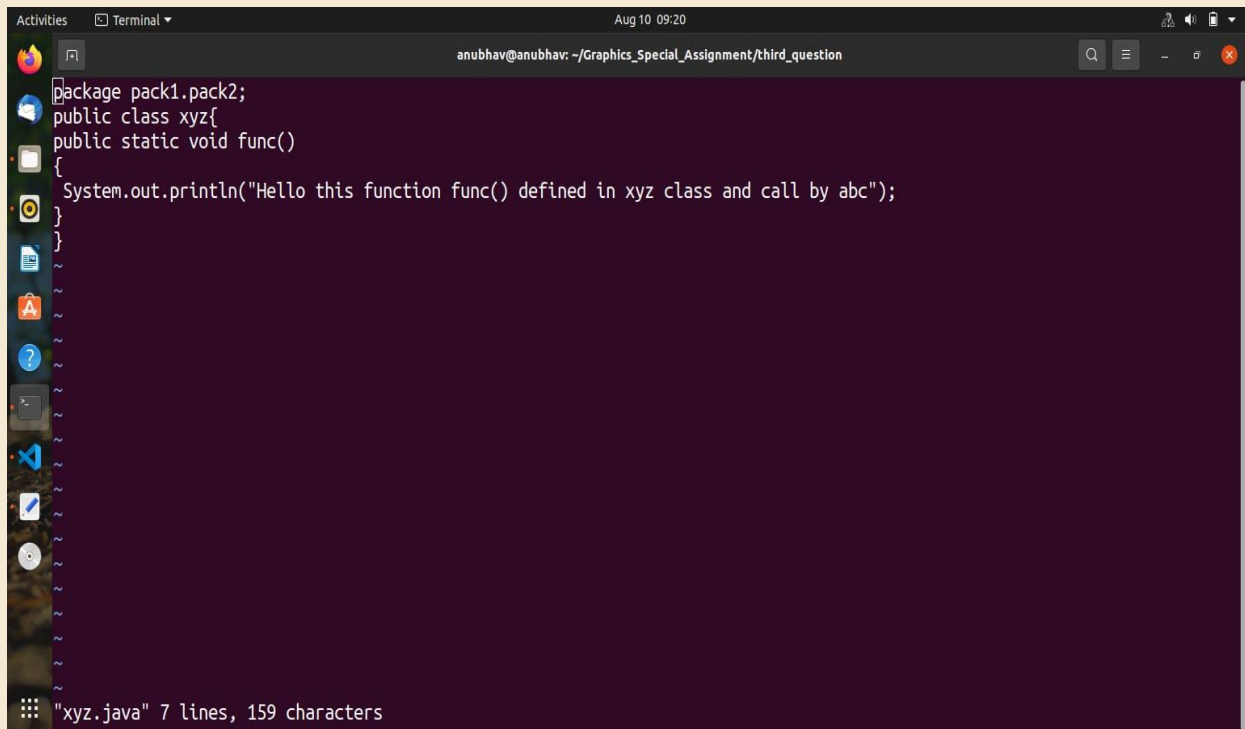
abc.java-



```
package pack1;
import pack1.pack2.xyz;
import pack1.pack2.pack3.pqr;
public class abc{
    public static void main(String args[])
    {
        System.out.println("This is abc class");
        System.out.println("Now i m creating object of xyz and pqr and then i am calling its function:");
        xyz ob=new xyz();
        ob.func();
        pqr ob1=new pqr();
        ob1.function();
    }
}
```

"abc.java" 14 lines, 368 characters

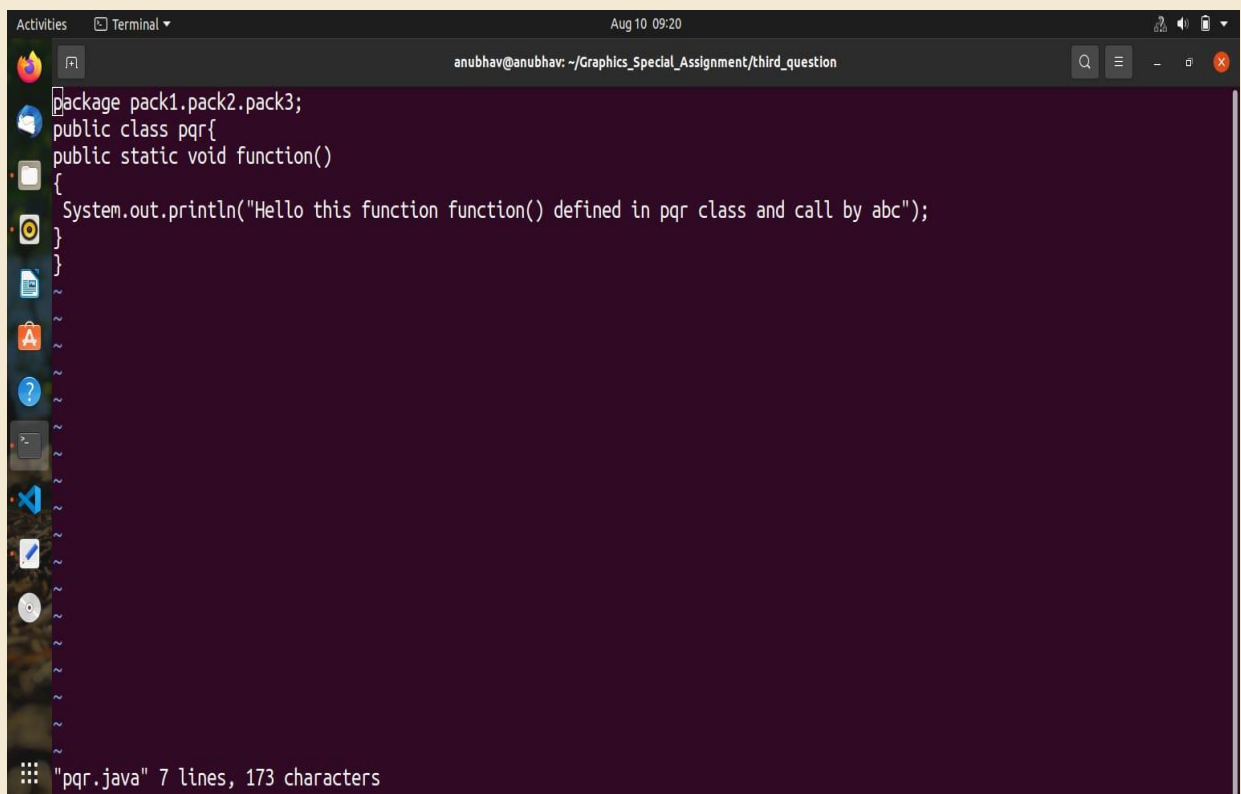
xyz.java-



```
package pack1.pack2;
public class xyz{
public static void func()
{
    System.out.println("Hello this function func() defined in xyz class and call by abc");
}
}
```

"xyz.java" 7 lines, 159 characters

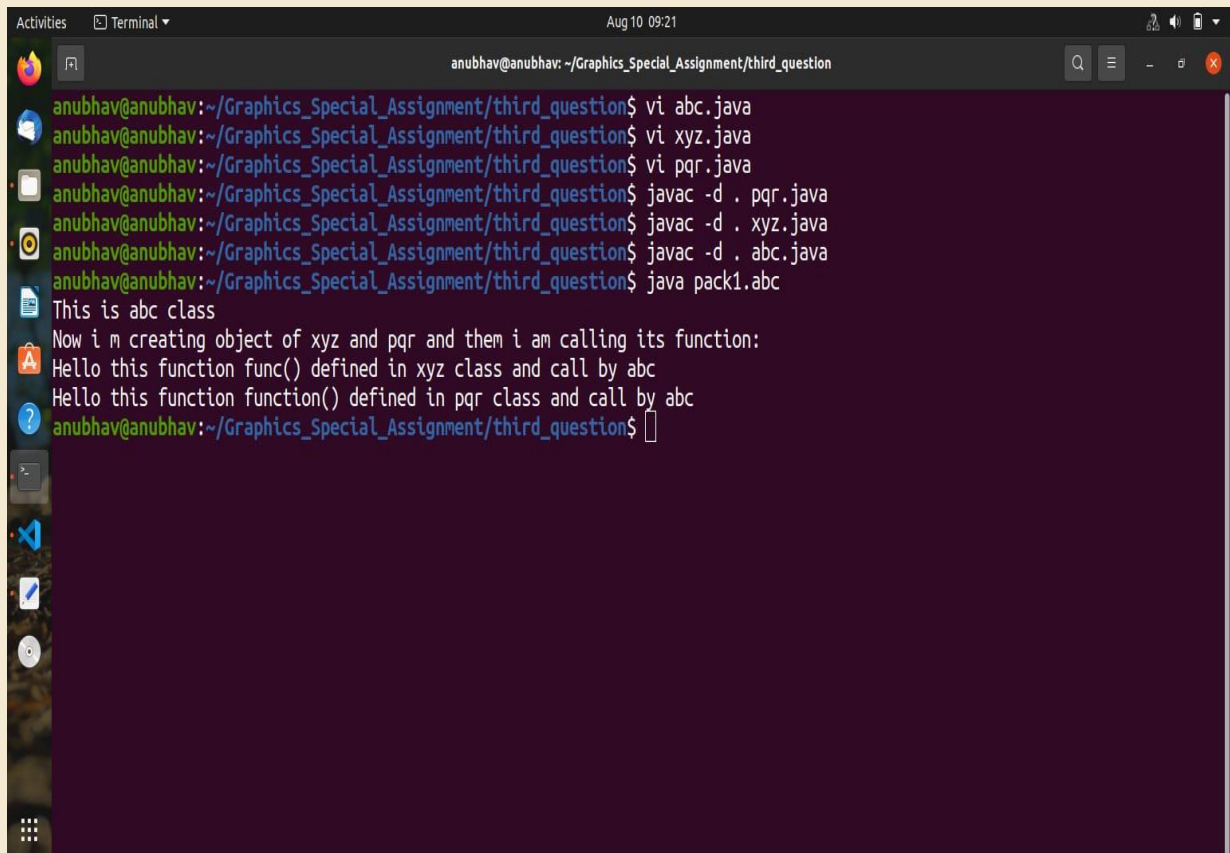
pqr.java-



```
package pack1.pack2.pack3;
public class pqr{
public static void function()
{
    System.out.println("Hello this function function() defined in pqr class and call by abc");
}
}
```

"pqr.java" 7 lines, 173 characters

Output-

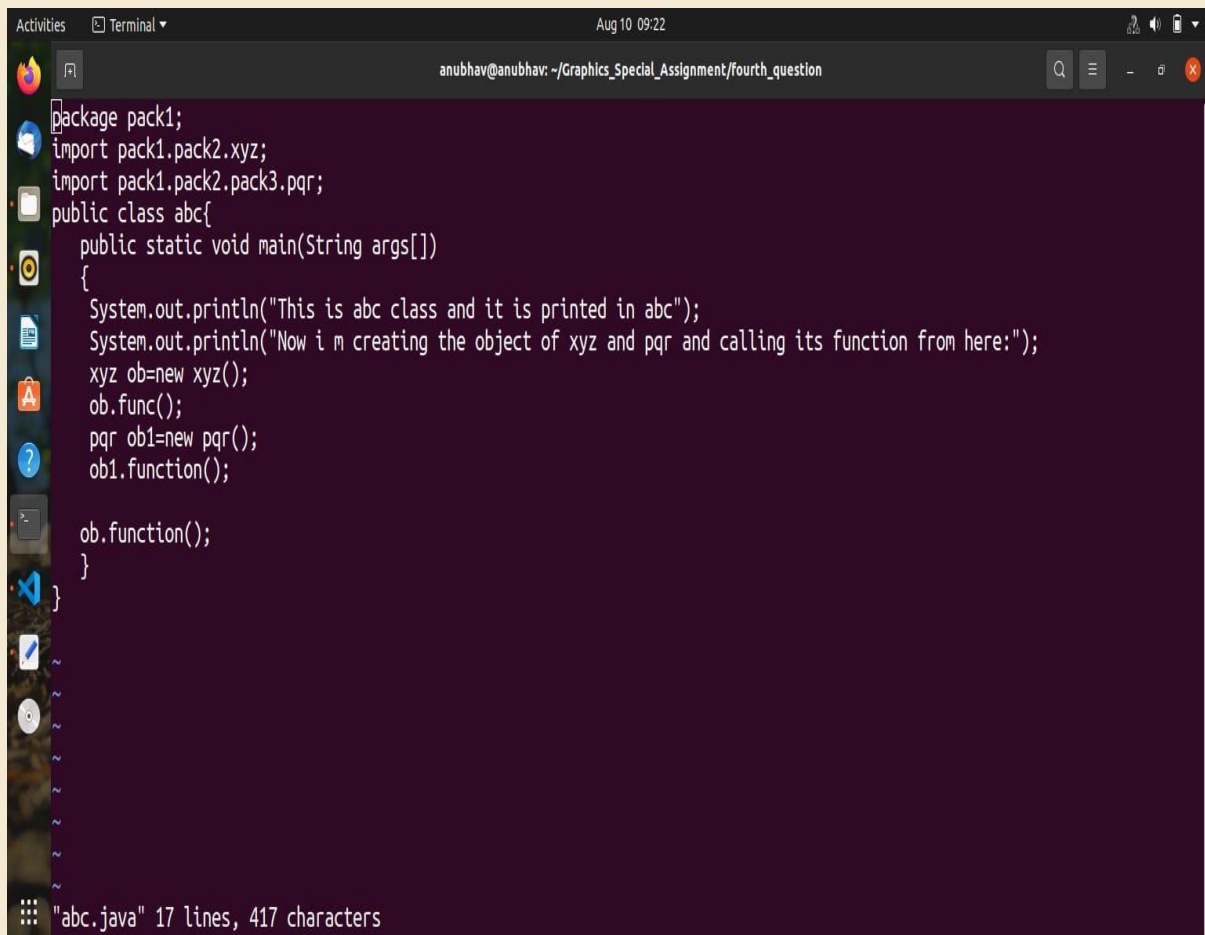
A screenshot of a Linux terminal window. The title bar shows 'Activities', 'Terminal', and the date 'Aug 10 09:21'. The terminal window title is 'anubhav@anubhav: ~/Graphics_Special_Assignment/third_question'. The user 'anubhav' is at the prompt. The commands and their outputs are as follows:

```
anubhav@anubhav:~/Graphics_Special_Assignment/third_question$ vi abc.java
anubhav@anubhav:~/Graphics_Special_Assignment/third_question$ vi xyz.java
anubhav@anubhav:~/Graphics_Special_Assignment/third_question$ vi pqr.java
anubhav@anubhav:~/Graphics_Special_Assignment/third_question$ javac -d . pqr.java
anubhav@anubhav:~/Graphics_Special_Assignment/third_question$ javac -d . xyz.java
anubhav@anubhav:~/Graphics_Special_Assignment/third_question$ javac -d . abc.java
anubhav@anubhav:~/Graphics_Special_Assignment/third_question$ java pack1.abc
This is abc class
Now i m creating object of xyz and pqr and then i am calling its function:
Hello this function func() defined in xyz class and call by abc
Hello this function function() defined in pqr class and call by abc
anubhav@anubhav:~/Graphics_Special_Assignment/third_question$
```

4. Develop a program to show inheritance in java using user defined package

Ans-

abc.java-



```
package pack1;
import pack1.pack2.xyz;
import pack1.pack2.pack3.pqr;
public class abc{
    public static void main(String args[])
    {
        System.out.println("This is abc class and it is printed in abc");
        System.out.println("Now i m creating the object of xyz and pqr and calling its function from here:");
        xyz ob=new xyz();
        ob.func();
        pqr ob1=new pqr();
        ob1.function();

        ob.function();
    }
}
```

"abc.java" 17 lines, 417 characters

xyz.java-



```
package pack1.pack2;
import pack1.pack2.pack3.pqr;
public class xyz extends pqr{
    public static void function()
    {
        System.out.println("This is overridden");
    }
    public static void func()
    {
        System.out.println("Hello this function func() defined in pqr and called in abc");
    }
}
```

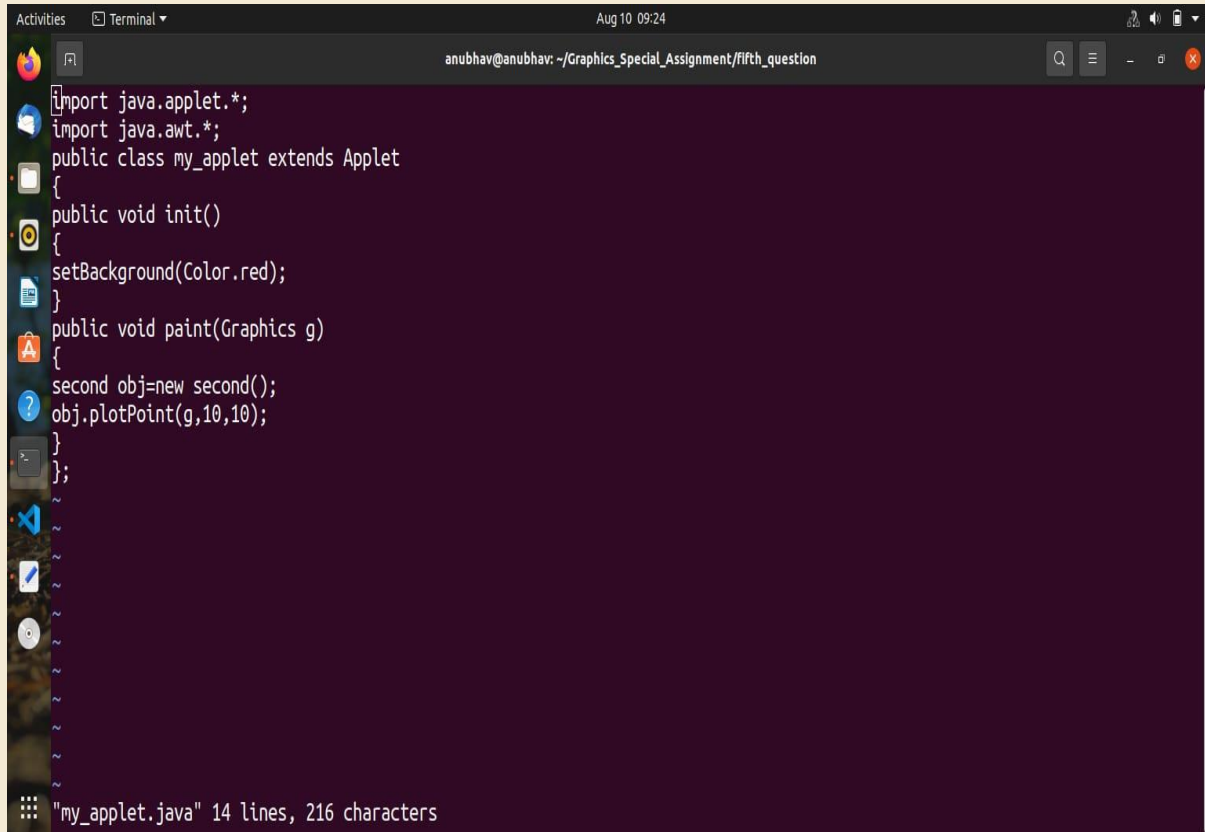
"xyz.java" 14 lines, 277 characters

pqr.java-

5. Develop an applet program using default package.

Ans-

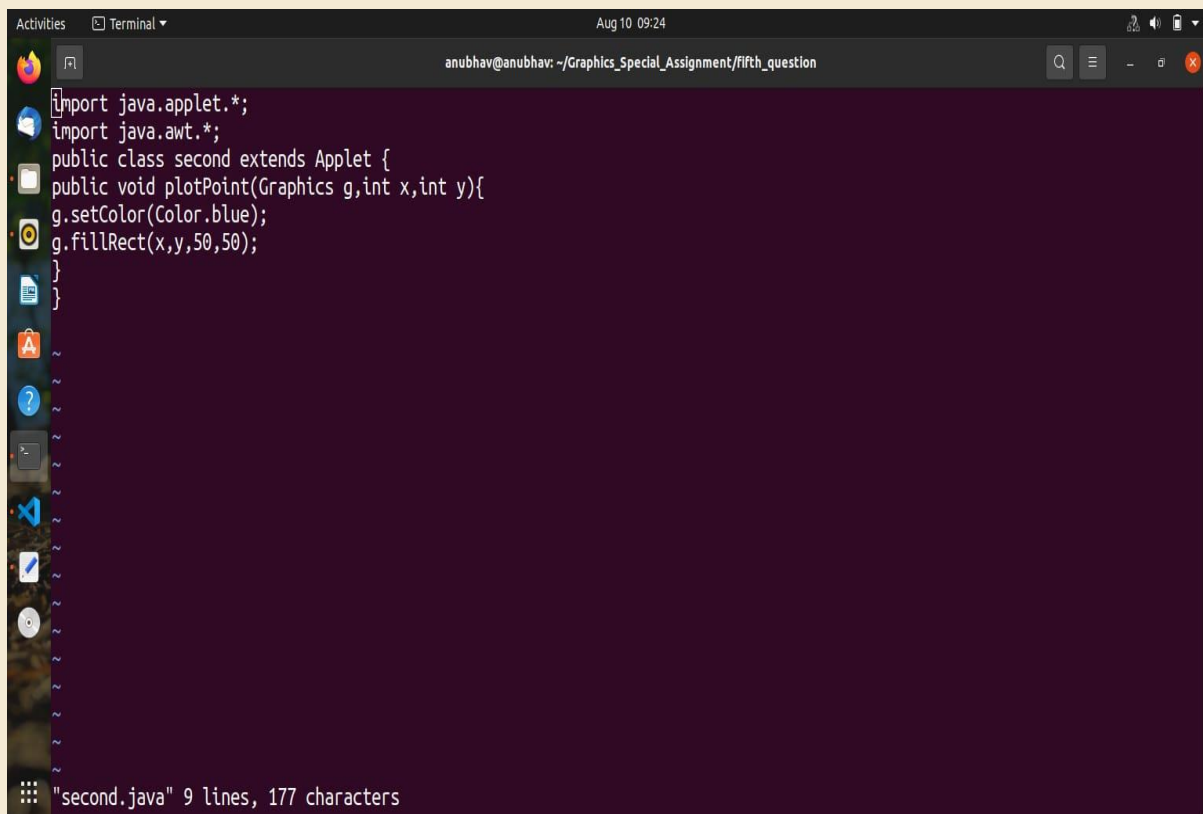
My_applet.java-

A screenshot of a terminal window with a dark purple background. The window title bar shows 'Activities', 'Terminal', and the date 'Aug 10 09:24'. The terminal content displays the Java code for 'My_applet.java'. The code imports 'java.applet.*' and 'java.awt.*', defines a 'public class my_applet' extending 'Applet', and includes methods 'init()' and 'paint(Graphics g)'. The 'init()' method calls 'setBackground(Color.red);'. The 'paint()' method creates a 'second' object and calls 'obj.plotPoint(g,10,10);'. The status bar at the bottom indicates '"my_applet.java" 14 lines, 216 characters'.

```
import java.applet.*;
import java.awt.*;
public class my_applet extends Applet
{
    public void init()
    {
        setBackground(Color.red);
    }
    public void paint(Graphics g)
    {
        second obj=new second();
        obj.plotPoint(g,10,10);
    }
};
```

"my_applet.java" 14 lines, 216 characters

second.java-

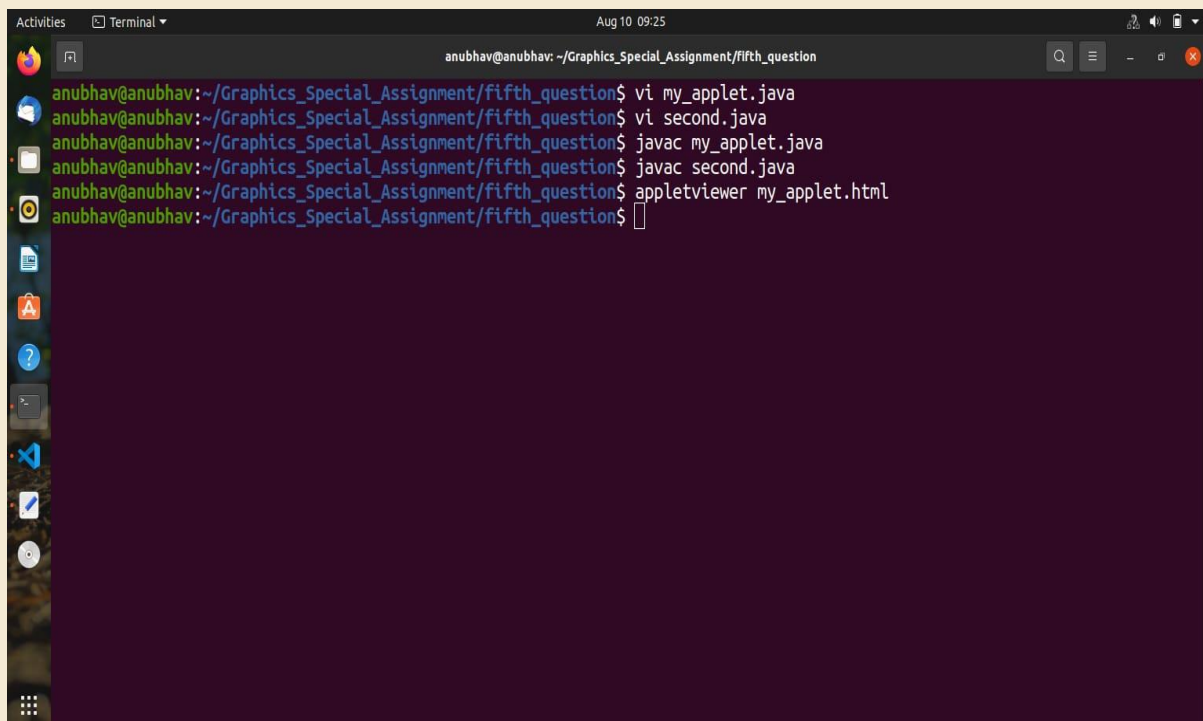


A terminal window titled "Terminal" with the date "Aug 10 09:24" and the path "anubhav@anubhav: ~/Graphics_Special_Assignment/fifth_question". The terminal displays the following Java code:

```
import java.applet.*;
import java.awt.*;
public class second extends Applet {
    public void plotPoint(Graphics g,int x,int y){
        g.setColor(Color.blue);
        g.fillRect(x,y,50,50);
    }
}
```

At the bottom of the terminal, it says: "second.java" 9 lines, 177 characters.

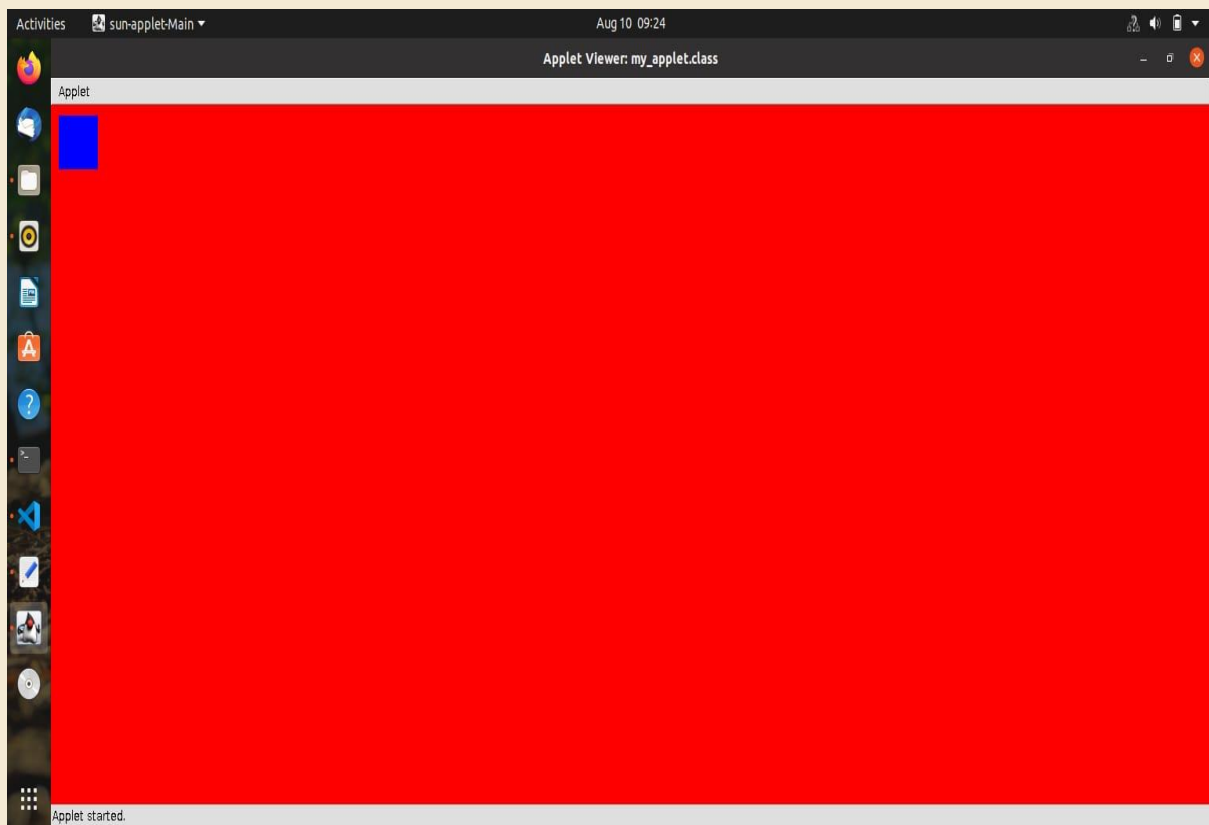
Output-



A terminal window titled "Terminal" with the date "Aug 10 09:25" and the path "anubhav@anubhav: ~/Graphics_Special_Assignment/fifth_question". The terminal shows the following commands and their outputs:

```
anubhav@anubhav:~/Graphics_Special_Assignment/fifth_question$ vi my_applet.java
anubhav@anubhav:~/Graphics_Special_Assignment/fifth_question$ vi second.java
anubhav@anubhav:~/Graphics_Special_Assignment/fifth_question$ javac my_applet.java
anubhav@anubhav:~/Graphics_Special_Assignment/fifth_question$ javac second.java
anubhav@anubhav:~/Graphics_Special_Assignment/fifth_question$ appletviewer my_applet.html
anubhav@anubhav:~/Graphics_Special_Assignment/fifth_question$
```

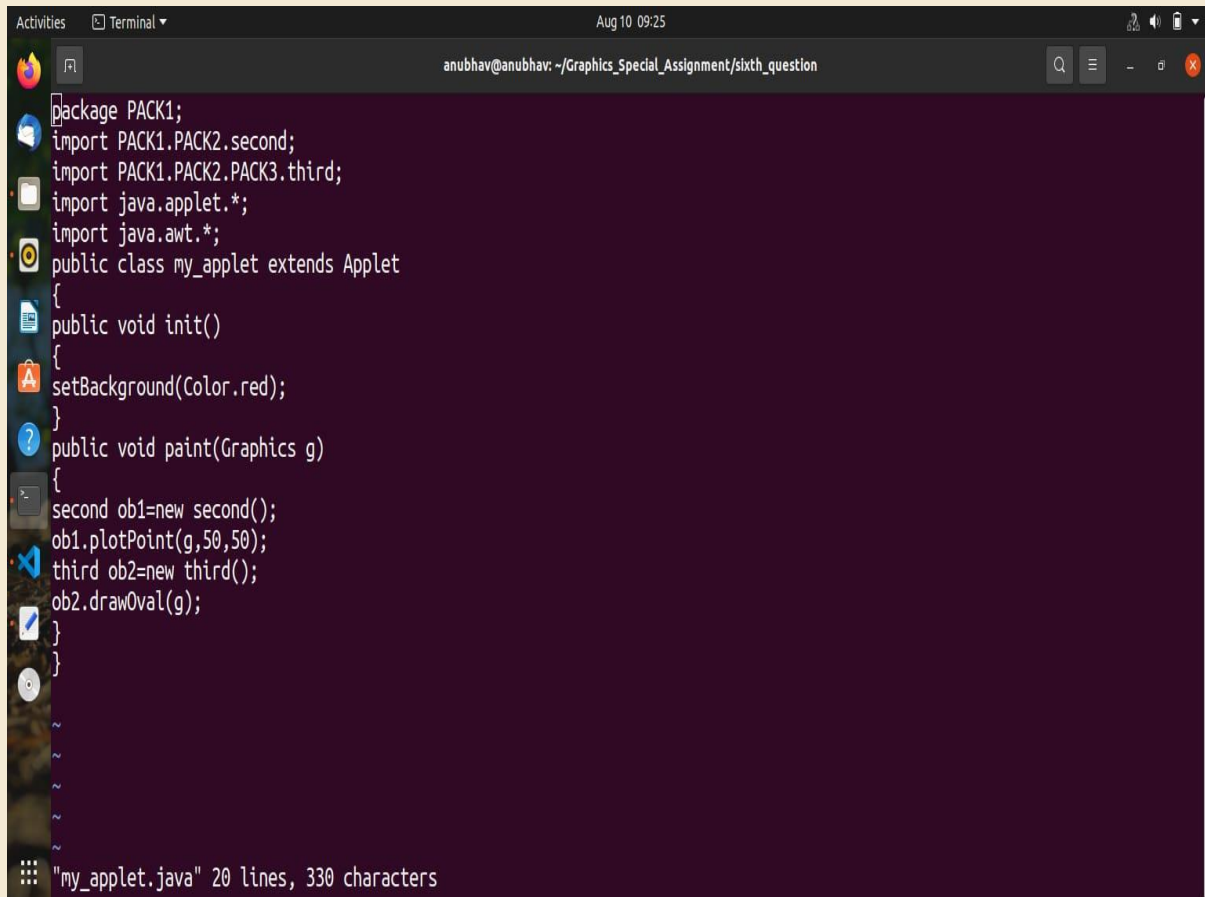
Applet-View-



6. Develop an applet program using user defined package and user defined nested package

Ans-

my_applet.java-

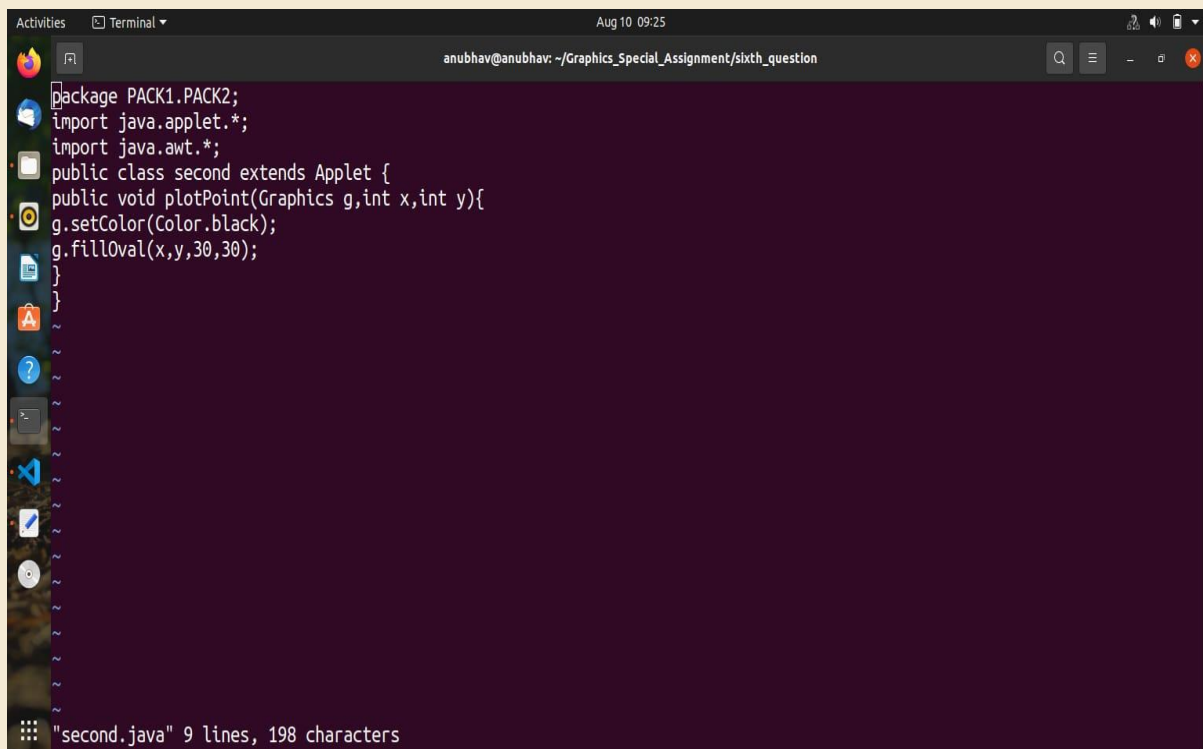


```
package PACK1;
import PACK1.PACK2.second;
import PACK1.PACK2.PACK3.third;
import java.applet.*;
import java.awt.*;
public class my_applet extends Applet
{
    public void init()
    {
        setBackground(Color.red);
    }
    public void paint(Graphics g)
    {
        second ob1=new second();
        ob1.plotPoint(g,50,50);
        third ob2=new third();
        ob2.drawOval(g);
    }
}

~
~
~
~

"my_applet.java" 20 lines, 330 characters
```

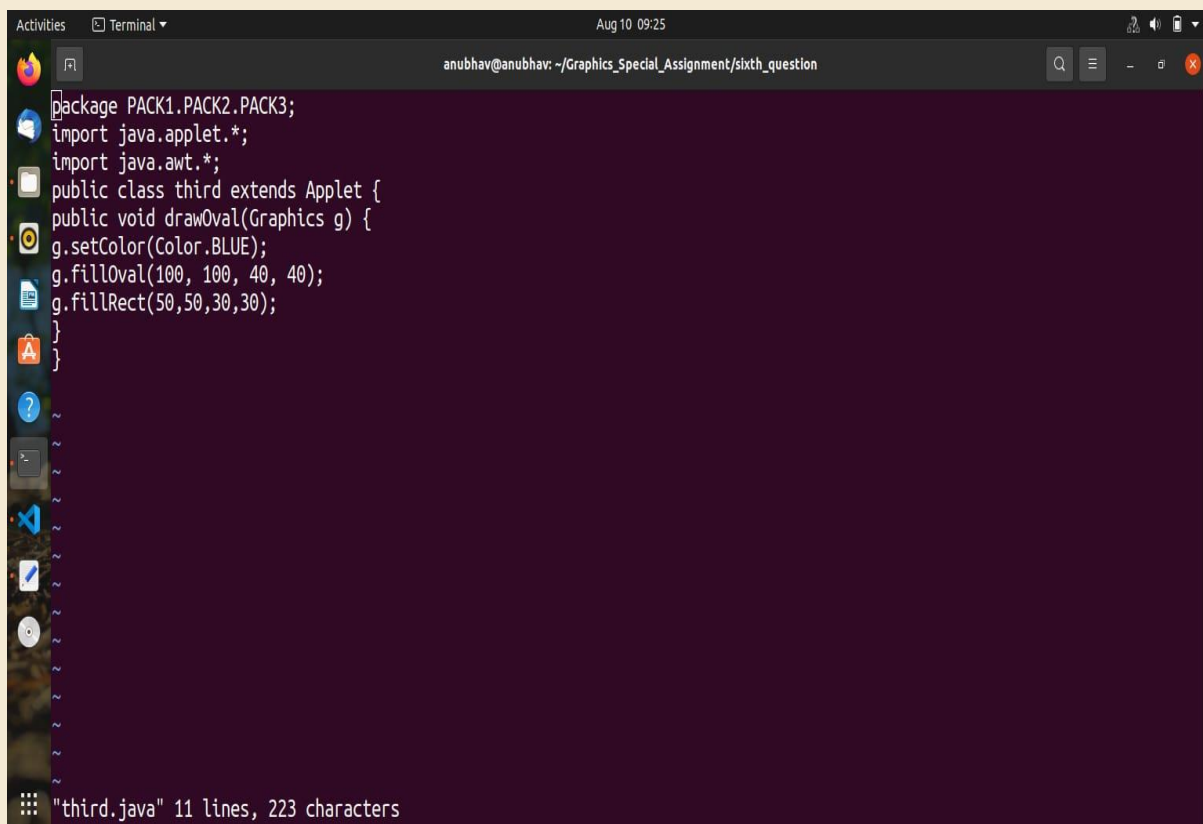

second.java-



```
package PACK1.PACK2;
import java.applet.*;
import java.awt.*;
public class second extends Applet {
    public void plotPoint(Graphics g,int x,int y){
        g.setColor(Color.black);
        g.fillOval(x,y,30,30);
    }
}
```

"second.java" 9 lines, 198 characters

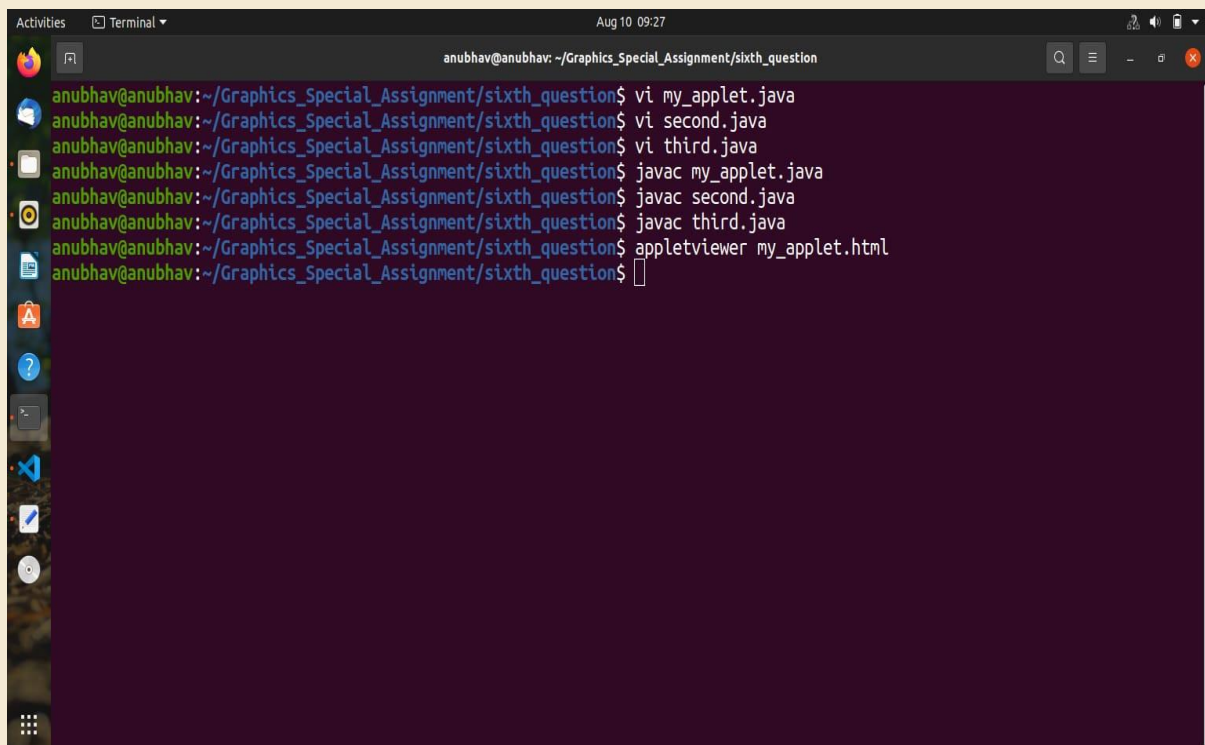
third.java-



```
package PACK1.PACK2.PACK3;
import java.applet.*;
import java.awt.*;
public class third extends Applet {
    public void drawOval(Graphics g) {
        g.setColor(Color.BLUE);
        g.fillOval(100, 100, 40, 40);
        g.fillRect(50,50,30,30);
    }
}
```

"third.java" 11 lines, 223 characters

Output-



```
anubhav@anubhav: ~/Graphics_Special_Assignment/sixth_question
anubhav@anubhav:~/Graphics_Special_Assignment/sixth_question$ vi my_applet.java
anubhav@anubhav:~/Graphics_Special_Assignment/sixth_question$ vi second.java
anubhav@anubhav:~/Graphics_Special_Assignment/sixth_question$ vi third.java
anubhav@anubhav:~/Graphics_Special_Assignment/sixth_question$ javac my_applet.java
anubhav@anubhav:~/Graphics_Special_Assignment/sixth_question$ javac second.java
anubhav@anubhav:~/Graphics_Special_Assignment/sixth_question$ javac third.java
anubhav@anubhav:~/Graphics_Special_Assignment/sixth_question$ appletviewer my_applet.html
anubhav@anubhav:~/Graphics_Special_Assignment/sixth_question$
```

Applet-View-

