

SHRI VILE PARLE KELVANI MANDAL'S
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Project Report On :

MARVEL AVENGER'S GAME

Program : Information Technology
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Chapter 1

Description

Marvel Avenger's Game is a Swing based Java Frame project developed for children aged 7-16. The Main Objective of the game is to achieve points and beat high scores with some learning of mathematical concepts while playing the game.

Basic Idea of Project : Choose your Hero (Avenger) and take on a fight with Villain to save the day from destruction. Attack the Villain with four unique attacks and kill the villain by lowering its Hitpoints to win!.

Problem Statement : Create a Java JFrame program to develop a game with 4 Heroes and 2 Villain with the following Functionalities included in Game

1. Play Game
2. Game Guide
3. Battle Log
4. Rate Game
5. Credits

Chapter 2

Features

Marvel Avenger's Game includes various features which apply basic to complex Java concepts which include :

- Play Game
- Game Guide
- Battle Log
- Rate Game
- Credits

Java Concepts used in Marvel Avenger's Game are as follows :

- Operators
- Control Statements
- Inheritance
- Packages and Interfaces
- String Handling
- Exception Handling
- Multithreaded Programming
- Event Handling
- Java Swing

Chapter 3

Hardware and Software Requirements

Hardware Requirements :

- Windows 7 or Higher (32 bit or 64 bit)
- Intel i3 processor / AMD Ryzen 3 or Higher
- Minimum 2GB/4GB Ram
- 250 GB free disk space
- Speakers

Software Requirements :

- * JDK 16
- * Sublime Text

JDK 16



Java is a high-level, class-based, object-oriented programming language that is designed to have as few implementation dependencies as possible. It is a general-purpose programming language intended to let programmers write once, run anywhere (WORA). Java applications are typically compiled to bytecode that can run on any Java virtual machine (JVM) regardless of the underlying computer architecture.

Chapter 4

Module Implementation

Marvel Avenger's Game is made Modularly by creating a new Java Swing File and Linking each files with each other by encapsulation of public reference of variables and methods.

Java Swing Files are as follows :

1. PlayGame.java
2. PlayGameWithMusic.java
3. Introduction.java
4. MainMenu.java
5. Fight.java
6. GameGuide.java
7. Description.java
8. Reviews.java
9. Credits.java

PlayGame.java	
Methods	Description
Main()	Creates an Objects of Introduction Class
PlayGameWithMusic.java	
Methods	Description
Main()	Plays audio in loop while creating Object of Introduction Class
Introduction.java	
Methods	Description
Introduction()	Sets the GUI of Introduction
Main()	Creates an Objects of Introduction Class
MainMenu.java	
Methods	Description
MainMenu()	Sets the GUI of MainMenu
Main()	Creates an Objects of MainMenu Class
Fight.java	
Methods	Description
Fight()	Sets the GUI of Fight
panel1close()	Changes GUI in Panel 1 to setVisible(false)
panel2open()	Changes GUI in Panel 2 to setVisible(true)
panel2Listeners()	Adds Listeners to Panel 2
panel2close()	Changes GUI in Panel 2 to setVisible(false)
setmainFight()	Instantiates GUI according to Panel 1 and Panel 2
mainFightBtnListeners()	Adds Listeners to Main Fight Panel
deathCheck()	Checks the Death of any Character
mainFightPanelClose()	Changes GUI in Main Fight to setVisible(true)
resultScreen()	Sets the GUI of Result according to Main Fight
Main()	Creates an Objects of Fight Class
Game Guide	
Methods	Description
GameGuide	Sets the GUI of GameGuide
Main()	Creates an Objects of GameGuide Class
Description.java	
Methods	Description
guideDecider()	Sets GUI according to Button pressed in GameGuide
Description()	Sets the GUI of Description
Main()	Creates an Objects of Description Class
Reviews.java	
Methods	Description
Reviews	Sets the GUI of Reviews
Main()	Creates an Objects of Reviews Class
Credits.java	
Methods	Description
Credits()	Sets the GUI of Credits
Main()	Creates an Object of Credits Class

Chapter 5

Source Code

PlayGameWithMusic.java

```
import java.io.File;
import java.io.IOException;
import java.util.Scanner;
import javax.sound.sampled.*;

public class PlayGameWithMusic
{
    public static void main(String[] args) throws
        UnsupportedAudioFileException, IOException, LineUnavailableException
    {
        File file = new File("Marvel's Avengers Game - Main Theme.wav");
        AudioInputStream audioStream = AudioSystem.getAudioInputStream(file);
        Clip clip = AudioSystem.getClip();
        clip.open(audioStream);
        clip.loop(Clip.LOOP_CONTINUOUSLY);
        Introduction i=new Introduction();
    }
}
```

PlayGame.java

```
class PlayGame
{
    public static void main(String args[])
    {
        Introduction i=new Introduction();
    }
}
```

Introduction.java

```
import java.awt.*;
import javax.swing.JFrame;
import java.awt.event.*;
import javax.swing.*;
```



```

class Introduction extends JFrame
{
    Introduction()
    {
        JLabel background;
        JButton play;
        setSize(1570,840);
        setLayout(null);
        setExtendedState(JFrame.MAXIMIZED_BOTH);
        setDefaultCloseOperation(EXIT_ON_CLOSE);
        ImageIcon img=new ImageIcon("BackGround.jpg");
        background=new JLabel("",img,JLabel.CENTER);
        background.setBounds(0,0,1570,770);
        add(background);
        play=new JButton(new ImageIcon("PlayGame.png"));
        play.setBounds(200,500,361,79);
        play.setBackground(Color.BLACK);
        background.add(play);
        play.addActionListener(new ActionListener()
        {
            public void actionPerformed(ActionEvent ae)
            {
                setVisible(false);
                MainMenu m=new MainMenu();
            }
        });
        setVisible(true);
    }

    public static void main(String[] args)
    {
        Introduction m=new Introduction();
    }
}

```

MainMenu.java

```

import java.awt.*;
import javax.swing.JFrame;
import java.awt.event.*;
import javax.swing.*;

class MainMenu extends JFrame
{
    MainMenu()
    {
        JLabel mm,background,logo;
        JButton pg,gg,rg,c,exit,back;
        //declaration
    }
}

```

```

setSize(1570,840);
setLayout(null);
//background image
setExtendedState(JFrame.MAXIMIZED_BOTH);
setDefaultCloseOperation(EXIT_ON_CLOSE);
ImageIcon img=new ImageIcon("BImage.png");
background=new JLabel("",img,JLabel.CENTER);
background.setBounds(0,0,1570,770);
add(background);
logo=new JLabel(new ImageIcon("logo.png"));
logo.setBounds(645,280,214,236);
background.add(logo);
//background image finish
mm=new JLabel(new ImageIcon("MMbtn.png"));
mm.setBounds(620,50,266,79);
background.add(mm);
//mmbutton
pg=new JButton(new ImageIcon("PlayGame.png"));
pg.setBounds(150,250,361,79);
pg.setBackground(Color.BLACK);
background.add(pg);
//play game button
gg=new JButton(new ImageIcon("GameGuide.png"));
gg.setBounds(995,250,360,79);
gg.setBackground(Color.BLACK);
background.add(gg);
//game Guide
rg=new JButton(new ImageIcon("RateGame.png"));
rg.setBounds(150,500,360,79);
rg.setBackground(Color.BLACK);
background.add(rg);
//rate game
c=new JButton(new ImageIcon("Credits.png"));
c.setBounds(995,500,360,79);
c.setBackground(Color.BLACK);
background.add(c);
//credits
exit=new JButton(new ImageIcon("Exit.png"));
exit.setBounds(610,600,291,79);
exit.setBackground(Color.BLACK);
background.add(exit);
//exit
back=new JButton(new ImageIcon("backbtn.png"));
back.setBounds(0,0,100,100);
back.setBackground(Color.BLACK);
background.add(back);

//all Actions

```

```

back.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
setVisible(false);
Introduction i=new Introduction();
}
});
pg.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
setVisible(false);
Fight f=new Fight();
}
});
gg.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
setVisible(false);
GameGuide gg=new GameGuide();
}
});
rg.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
setVisible(false);
Reviews r=new Reviews();
}
});
c.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
setVisible(false);
Credits c=new Credits();
}
});
exit.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
setVisible(false);
System.out.println("Game Ended");
System.exit(0);
}
}

```

```

});
setVisible(true);
}
public static void main (String args[])
{
MainMenu m=new MainMenu();
}
}

```

Fight.java

```

import java.awt.*;
import javax.swing.JFrame;
import java.awt.event.*;
import javax.swing.*;
import java.io.*;

class Fight extends JFrame
{
JLabel ac,vc,background,avgimg,villimg,fghtnm,versus,logo;
JLabel result,resulticon,points,resultgreet;
JButton bav1,bav2,bav3,bav4,bv1,bv2,exit,back;
JButton a1,a2,a3,a4,v1,v2,v3,v4;
JProgressBar healtha,healthv;
JPanel ahpanel,vhpanel;
String fightname,avgname,villname,resulttxt,rtxt1,rtxt2;
int hpa,hpv,deathflag=1,ohpv;
public int choosea,choosev;
Fight()
{
//declaration
setSize(1570,840);
setLayout(null);
//background image
setExtendedState(JFrame.MAXIMIZED_BOTH);
setDefaultCloseOperation(EXIT_ON_CLOSE);
ImageIcon img=new ImageIcon("BImage.png");
background=new JLabel("",img,JLabel.CENTER);
background.setBounds(0,0,1570,770);
add(background);

//background image finish
ac=new JLabel(new ImageIcon("ac.png"));
ac.setBounds(620,50,343,79);
background.add(ac);

vc=new JLabel(new ImageIcon("vc.png"));
vc.setBounds(620,50,343,79);
background.add(vc);

```

```

vc.setVisible(false);

//mmbutton
bav1=new JButton(new ImageIcon("IMbtn.png"));
bav1.setBounds(150,250,444,79);
bav1.setBackground(Color.BLACK);
background.add(bav1);

bav2=new JButton(new ImageIcon("Hbtn.png"));
bav2.setBounds(995,250,444,79);
bav2.setBackground(Color.BLACK);
background.add(bav2);

bav3=new JButton(new ImageIcon("Tbtn.png"));
bav3.setBounds(150,500,444,79);
bav3.setBackground(Color.BLACK);
background.add(bav3);

bav4=new JButton(new ImageIcon("CAbtn.png"));
bav4.setBounds(995,500,444,79);
bav4.setBackground(Color.BLACK);
background.add(bav4);

bv1=new JButton(new ImageIcon("Thanosbtn.png"));
bv1.setBounds(150,350,445,79);
bv1.setBackground(Color.BLACK);
background.add(bv1);
bv1.setVisible(false);

bv2=new JButton(new ImageIcon("Lokibtn.png"));
bv2.setBounds(950,350,444,79);
bv2.setBackground(Color.BLACK);
background.add(bv2);
bv2.setVisible(false);

exit=new JButton(new ImageIcon("Exit.png"));
exit.setBounds(1200,650,291,79);
exit.setBackground(Color.BLACK);
background.add(exit);
//exit
back=new JButton(new ImageIcon("backbtn.png"));
back.setBounds(0,0,100,100);
back.setBackground(Color.BLACK);
background.add(back);

//all Actions
back.addActionListener(new ActionListener()

```

```

{
public void actionPerformed(ActionEvent ae)
{
setVisible(false);
MainMenu m=new MainMenu();
}
});
bav1.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
choosea=1;
panel1close();
}
});
bav2.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
choosea=2;
panel1close();
}
});
bav3.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
choosea=3;
panel1close();
}
});
bav4.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
choosea=4;
panel1close();
}
});
exit.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
panel1close();
setVisible(false);
System.out.println("Game Ended");
System.exit(0);
}
}

```

```

    });
    setVisible(true);
}

public void panel1close()
{
    bav1.setVisible(false);
    bav2.setVisible(false);
    bav3.setVisible(false);
    bav4.setVisible(false);
    ac.setVisible(false);
    panel2open();
}

public void panel2open()
{
    bv1.setVisible(true);
    bv2.setVisible(true);
    vc.setVisible(true);
    panel2Listeners();
}

public void panel2Listeners()
{
    {
        bv1.addActionListener(new ActionListener()
        {
            public void actionPerformed(ActionEvent ae)
            {
                choosev=5;
                panel2close();
            }
        });
        bv2.addActionListener(new ActionListener()
        {
            public void actionPerformed(ActionEvent ae)
            {
                choosev=6;
                panel2close();
            }
        });
    }

    public void panel2close()
    {
        bv1.setVisible(false);
        bv2.setVisible(false);
        vc.setVisible(false);
        exit.setVisible(false);
    }
}

```

```

setmainFight();
}

public void setmainFight()
{
    if(choosea==1)
    {
        hpa=440;
        fightname="IRON MAN v/s ";
        avgname="IRON MAN";
        avgimg=new JLabel(new ImageIcon("IMimage.png"));
        avgimg.setBounds(300,150,300,336);
        background.add(avgimg);

        a1=new JButton(new ImageIcon("IMa1.png"));
        a1.setBounds(150,525,444,93);
        a1.setBackground(Color.BLACK);
        background.add(a1);

        a2=new JButton(new ImageIcon("IMa2.png"));
        a2.setBounds(950,525,444,93);
        a2.setBackground(Color.BLACK);
        background.add(a2);

        a3=new JButton(new ImageIcon("IMa3.png"));
        a3.setBounds(150,650,444,93);
        a3.setBackground(Color.BLACK);
        background.add(a3);

        a4=new JButton(new ImageIcon("IMa4.png"));
        a4.setBounds(950,650,444,93);
        a4.setBackground(Color.BLACK);
        background.add(a4);
    }
    else if(choosea==2)
    {
        hpa=600;
        fightname="HULK v/s ";
        avgname="HULK";
        avgimg=new JLabel(new ImageIcon("Himage.png"));
        avgimg.setBounds(300,150,300,336);
        background.add(avgimg);

        a1=new JButton(new ImageIcon("Ha1.png"));
        a1.setBounds(150,525,444,93);
        a1.setBackground(Color.BLACK);
        background.add(a1);
    }
}

```



```

a2=new JButton(new ImageIcon("Ha2.png"));
a2.setBounds(950,525,444,93);
a2.setBackground(Color.BLACK);
background.add(a2);

a3=new JButton(new ImageIcon("Ha3.png"));
a3.setBounds(150,650,444,93);
a3.setBackground(Color.BLACK);
background.add(a3);

a4=new JButton(new ImageIcon("Ha4.png"));
a4.setBounds(950,650,444,93);
a4.setBackground(Color.BLACK);
background.add(a4);
}
else if(choosea==3)
{
hpa=400;
fightname="THOR v/s ";
avgname="THOR";
avgimg=new JLabel(new ImageIcon("Timage.png"));
avgimg.setBounds(300,150,300,336);
background.add(avgimg);

a1=new JButton(new ImageIcon("Ta1.png"));
a1.setBounds(150,525,444,93);
a1.setBackground(Color.BLACK);
background.add(a1);

a2=new JButton(new ImageIcon("Ta2.png"));
a2.setBounds(950,525,444,93);
a2.setBackground(Color.BLACK);
background.add(a2);

a3=new JButton(new ImageIcon("Ta3.png"));
a3.setBounds(150,650,444,93);
a3.setBackground(Color.BLACK);
background.add(a3);

a4=new JButton(new ImageIcon("Ta4.png"));
a4.setBounds(950,650,444,93);
a4.setBackground(Color.BLACK);
background.add(a4);
}
else if(choosea==4)
{
hpa=520;
fightname="CAPTAIN AMERICA v/s ";

```

```

avgname="CAPTAIN AMERICA";
avgimg=new JLabel(new ImageIcon("CAimage.png"));
avgimg.setBounds(300,150,300,336);
background.add(avgimg);

a1=new JButton(new ImageIcon("CAa1.png"));
a1.setBounds(150,525,444,93);
a1.setBackground(Color.BLACK);
background.add(a1);

a2=new JButton(new ImageIcon("CAa2.png"));
a2.setBounds(950,525,444,93);
a2.setBackground(Color.BLACK);
background.add(a2);

a3=new JButton(new ImageIcon("CAa3.png"));
a3.setBounds(150,650,444,93);
a3.setBackground(Color.BLACK);
background.add(a3);

a4=new JButton(new ImageIcon("CAa4.png"));
a4.setBounds(950,650,444,93);
a4.setBackground(Color.BLACK);
background.add(a4);
}
//
if(choosev==5)
{
ohpv=960;
hpv=960;
fightname=fightname+"THANOS";
villname="THANOS";
villimg=new JLabel(new ImageIcon("Thimage.png"));
villimg.setBounds(950,120,300,412);
background.add(villimg);
}
else if(choosev==6)
{
ohpv=480;
hpv=480;
fightname=fightname+"LOKI";
villname="LOKI";
villimg=new JLabel(new ImageIcon("Limage.png"));
villimg.setBounds(950,100,300,412);
background.add(villimg);
}

fghtnm=new JLabel(fightname,JLabel.CENTER);

```

```

fightnm.setBounds(0,25,1560,79);
fightnm.setForeground(Color.yellow);
fightnm.setFont(new Font("Verdana", Font.PLAIN, 40));
//fightnm.setSize(300,300);
background.add(fightnm);
System.out.println(fightname);

//health bars
ahpanel=new JPanel();
ahpanel.setBounds(200,150,30,300);
ahpanel.setBackground(Color.white);
background.add(ahpanel);
mainFightBtnListeners();

vhpanel=new JPanel();
vhpanel.setBounds(1350,150,30,300);
vhpanel.setBackground(Color.white);
background.add(vhpanel);

healtha=new JProgressBar(JProgressBar.VERTICAL,0,hpa);
healtha.setPreferredSize(new Dimension(30,300));
healtha.setStringPainted(true);
healtha.setForeground(Color.green);
healtha.setValue(hpa);
ahpanel.add(healtha);

healthv=new JProgressBar(JProgressBar.VERTICAL,0,hpv);
healthv.setPreferredSize(new Dimension(30,300));
healtha.setStringPainted(true);
healthv.setForeground(Color.green);
healthv.setValue(hpv);
vhpanel.add(healthv);

versus=new JLabel(new ImageIcon("Versus.png"),JLabel.CENTER);
versus.setBounds(0,100,1560,400);
background.add(versus);

logo=new JLabel(new ImageIcon("alogo.png"));
logo.setBounds(675,500,214,236);
background.add(logo);

mainFightBtnListeners();
}

public void mainFightBtnListeners()
{
if(choosea==1)
{

```

```

a1.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
hpv=hpv-80;
healthv.setValue(hpv);
if(choosev==5)
{
hpa=hpa-30;
}
else if(choosev==6)
{
hpa=hpa-50;
}
healtha.setValue(hpa);
deathCheck();
}
});
a2.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
hpv=hpv-60;
healthv.setValue(hpv);
if(choosev==5)
{
hpa=hpa-10;
}
else if(choosev==6)
{
hpa=hpa-30;
}
healtha.setValue(hpa);
deathCheck();
}
});
a3.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
hpv=hpv-40;
healthv.setValue(hpv);
if(choosev==5)
{
hpa=hpa-20;
}
else if(choosev==6)
{

```

```

hpa=hpa-20;
}
healtha.setValue(hpa);
deathCheck();
}
});
a4.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
hpv=hpv-20;
healthv.setValue(hpv);
if(choosev==5)
{
hpa=hpa-15;
}
else if(choosev==6)
{
hpa=hpa-35;
}
healtha.setValue(hpa);
deathCheck();
}
});
}
else if(choosea==2)
{
a1.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
hpv=hpv-20;
healthv.setValue(hpv);
if(choosev==5)
{
hpa=hpa-30;
}
else if(choosev==6)
{
hpa=hpa-50;
}
healtha.setValue(hpa);
deathCheck();
}
});
a2.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)

```

```

{
    hpv=hpv-80;
    healthv.setValue(hpv);
    if(choosev==5)
    {
        hpa=hpv-10;
    }
    else if(choosev==6)
    {
        hpa=hpv-30;
    }
    healtha.setValue(hpa);
    deathCheck();
}
});
a3.addActionListener(new ActionListener()
{
    public void actionPerformed(ActionEvent ae)
    {
        hpv=hpv-40;
        healthv.setValue(hpv);
        if(choosev==5)
        {
            hpa=hpv-20;
        }
        else if(choosev==6)
        {
            hpa=hpv-20;
        }
        healtha.setValue(hpa);
        deathCheck();
    }
});
a4.addActionListener(new ActionListener()
{
    public void actionPerformed(ActionEvent ae)
    {
        hpv=hpv-60;
        healthv.setValue(hpv);
        if(choosev==5)
        {
            hpa=hpv-15;
        }
        else if(choosev==6)
        {
            hpa=hpv-35;
        }
        healtha.setValue(hpa);
    }
});

```

```

deathCheck();
}
});
}
else if(choosea==3)
{
a1.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
hpv=hpv-60;
healthv.setValue(hpv);
if(choosev==5)
{
hpa=hpa-30;
}
else if(choosev==6)
{
hpa=hpa-50;
}
healtha.setValue(hpa);
deathCheck();
}
});
a2.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
hpv=hpv-80;
healthv.setValue(hpv);
if(choosev==5)
{
hpa=hpa-10;
}
else if(choosev==6)
{
hpa=hpa-30;
}
healtha.setValue(hpa);
deathCheck();
}
});
a3.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
hpv=hpv-20;
healthv.setValue(hpv);

```

```

if(choosev==5)
{
hpa=hpa-20;
}
else if(choosev==6)
{
hpa=hpa-20;
}
healtha.setValue(hpa);
deathCheck();
}
});
a4.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
hpv=hpv-40;
healthv.setValue(hpv);
if(choosev==5)
{
hpa=hpa-15;
}
else if(choosev==6)
{
hpa=hpa-35;
}
healtha.setValue(hpa);
deathCheck();
}
});
}
else if(choosea==4)
{
a1.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
hpv=hpv-80;
healthv.setValue(hpv);
if(choosev==5)
{
hpa=hpa-30;
}
else if(choosev==6)
{
hpa=hpa-50;
}
healtha.setValue(hpa);

```



```

deathCheck();
}
});
a2.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
hpv=hpv-40;
healthv.setValue(hpv);
if(choosev==5)
{
hpa=hpa-10;
}
else if(choosev==6)
{
hpa=hpa-30;
}
healtha.setValue(hpa);
deathCheck();
}
});
a3.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
hpv=hpv-20;
healthv.setValue(hpv);
if(choosev==5)
{
hpa=hpa-20;
}
else if(choosev==6)
{
hpa=hpa-20;
}
healtha.setValue(hpa);
deathCheck();
}
});
a4.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
hpv=hpv-60;
healthv.setValue(hpv);
if(choosev==5)
{
hpa=hpa-15;

```

```

    }
    else if(choosev==6)
    {
        hpa=hpa-35;
    }
    healtha.setValue(hpa);
    deathCheck();
    }
    });
    }
    }
    public void deathCheck()
    {
        if(hpa<0&&hpa>0)
        {
            resulttxt=avlname+" and "+villname+" Killed Each Other";
            rtxt1="It's A Tie";
            rtxt2="Points Scored : "+ohpv;
            mainFightPanelClose();
        }
        else if(hpa<=0&&hpa>0)
        {
            resulttxt=villname+" Killed "+avlname;
            rtxt1="Sorry You Lost!!!";
            rtxt2="Points Scored : 0";
            mainFightPanelClose();
        }
        else if(hpv<=0&&hpa>0)
        {
            resulttxt=avlname+" Killed "+villname;
            rtxt1="Congratulations You Won!!!";
            rtxt2="Points Scored : "+ohpv;
            mainFightPanelClose();
        }
    }
    }
    public void mainFightPanelClose()
    {
        avgimg.setVisible(false);
        villimg.setVisible(false);
        a1.setVisible(false);
        a2.setVisible(false);
        a3.setVisible(false);
        a4.setVisible(false);
        fightnm.setVisible(false);
        vhpanel.setVisible(false);
        ahpanel.setVisible(false);
        versus.setVisible(false);
        logo.setVisible(false);
    }

```

```

resultScreen();
}
public void resultScreen()
{
    exit.setVisible(true);
    resulticon=new JLabel(new ImageIcon("Result.png"));
    resulticon.setBounds(620,50,287,74);
    background.add(resulticon);

    result=new JLabel(resulttxt,JLabel.CENTER);
    result.setBounds(0,200,1560,79);
    result.setForeground(Color.yellow);
    result.setFont(new Font("Verdana", Font.PLAIN, 40));
    background.add(result);

    resultgreet=new JLabel(rtxt1,JLabel.CENTER);
    resultgreet.setBounds(0,300,1560,79);
    resultgreet.setForeground(Color.yellow);
    resultgreet.setFont(new Font("Verdana", Font.PLAIN, 40));
    background.add(resultgreet);

    points=new JLabel(rtxt2,JLabel.CENTER);
    points.setBounds(0,400,1560,79);
    points.setForeground(Color.yellow);
    points.setFont(new Font("Verdana", Font.PLAIN, 40));
    background.add(points);

    try
    {
        String fileresult=fightname+"\t\t\t"+resulttxt+"\t\t\t"+rtxt2+"\n";
        char rtext[]=fileresult.toCharArray();
        FileWriter f1 = new FileWriter("((((Battle Log.txt",true);
        f1.write(rtext);
        f1.close();
    }
    catch(IOException io)
    {
        System.out.println("IOException caught");
    }
}

public static void main (String args[])
{
    Fight f=new Fight();
}
}

```

GameGuide.java

```

import java.awt.*;
import javax.swing.JFrame;
import java.awt.event.*;
import javax.swing.*;

class GameGuide extends JFrame
{
public static int decider;
GameGuide()
{
JLabel gg,background;
JButton exit,back,av1,av2,av3,av4,v1,v2;
//declaration
setSize(1570,840);
setLayout(null);
//background image
setExtendedState(JFrame.MAXIMIZED_BOTH);
setDefaultCloseOperation(EXIT_ON_CLOSE);
ImageIcon img=new ImageIcon("BImage.png");
background=new JLabel("",img,JLabel.CENTER);
background.setBounds(0,0,1570,770);
add(background);
//background image finish
gg=new JLabel(new ImageIcon("GameGuide.png"));
gg.setBounds(560,50,362,79);
background.add(gg);
//mmbutton
exit=new JButton(new ImageIcon("Exit.png"));
exit.setBounds(1200,650,291,79);
exit.setBackground(Color.BLACK);
background.add(exit);
//exit

back=new JButton(new ImageIcon("backbtn.png"));
back.setBounds(0,0,100,100);
back.setBackground(Color.BLACK);
background.add(back);

av1=new JButton(new ImageIcon("IMbtn.png"));
av1.setBounds(150,200,444,79);
av1.setBackground(Color.BLACK);
background.add(av1);

av2=new JButton(new ImageIcon("Hbtn.png"));
av2.setBounds(900,200,444,79);
av2.setBackground(Color.BLACK);
background.add(av2);

```

```

av3=new JButton(new ImageIcon("Tbtn.png"));
av3.setBounds(150,350,444,79);
av3.setBackground(Color.BLACK);
background.add(av3);

av4=new JButton(new ImageIcon("CAbtn.png"));
av4.setBounds(900,350,444,79);
av4.setBackground(Color.BLACK);
background.add(av4);

v1=new JButton(new ImageIcon("Thanosbtn.png"));
v1.setBounds(150,500,444,79);
v1.setBackground(Color.BLACK);
background.add(v1);

v2=new JButton(new ImageIcon("Lokibtn.png"));
v2.setBounds(900,500,444,79);
v2.setBackground(Color.BLACK);
background.add(v2);

//all actions
av1.addActionListener(new ActionListener()
{
    public void actionPerformed(ActionEvent ae)
    {
        GameGuide.decider=1;
        Description d=new Description();
        d.guideDecider(GameGuide.decider);
        d.setVisible(true);
        setVisible(false);
    }
});
av2.addActionListener(new ActionListener()
{
    public void actionPerformed(ActionEvent ae)
    {
        GameGuide.decider=2;
        Description d=new Description();
        d.guideDecider(GameGuide.decider);
        d.setVisible(true);
        setVisible(false);
    }
});
av3.addActionListener(new ActionListener()
{
    public void actionPerformed(ActionEvent ae)
    {
        GameGuide.decider=3;

```

```

Description d=new Description();
d.guideDecider(GameGuide.decider);
d.setVisible(true);
setVisible(false);
}
});
av4.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
GameGuide.decider=4;
Description d=new Description();
d.guideDecider(GameGuide.decider);
d.setVisible(true);
setVisible(false);
}
});
v1.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
GameGuide.decider=5;
Description d=new Description();
d.guideDecider(GameGuide.decider);
d.setVisible(true);
setVisible(false);
}
});
v2.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
GameGuide.decider=6;
Description d=new Description();
d.guideDecider(GameGuide.decider);
d.setVisible(true);
setVisible(false);
}
});
back.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
setVisible(false);
MainMenu m=new MainMenu();
}
});
exit.addActionListener(new ActionListener()

```

```

{
public void actionPerformed(ActionEvent ae)
{
setVisible(false);
System.out.println("Game Ended");
System.exit(0);
}
});
setVisible(true);
}
public static void main(String args[])
{
GameGuide g=new GameGuide();
}
}

```

Description.java

```

import java.awt.*;
import javax.swing.JFrame;
import java.awt.event.*;
import javax.swing.*;

class Description extends JFrame
{
int no,flag=0;
JLabel title,dtxt1,dtxt2,dtxt3,dtxt4,dtxt5,dtxt6,img;

public void guideDecider(int d)
{
no=d;
if(no==1)
{
title=new JLabel(new ImageIcon("IMbtn.png"));
title.setBounds(540,50,444,79);
add(title);

img=new JLabel(new ImageIcon("IMimage.png"));
img.setBounds(1000,232,300,336);
add(img);

dtxt1=new JLabel(new ImageIcon("IM1.png"));
dtxt1.setBounds(100,150,512,73);
add(dtxt1);

dtxt2=new JLabel(new ImageIcon("IM2.png"));
dtxt2.setBounds(100,250,373,73);
add(dtxt2);

```

```

dtxt3=new JLabel(new ImageIcon("IM3.png"));
dtxt3.setBounds(100,350,586,73);
add(dtxt3);

dtxt4=new JLabel(new ImageIcon("IM4.png"));
dtxt4.setBounds(100,450,623,73);
add(dtxt4);

dtxt5=new JLabel(new ImageIcon("IM5.png"));
dtxt5.setBounds(100,550,776,73);
add(dtxt5);

dtxt6=new JLabel(new ImageIcon("IM6.png"));
dtxt6.setBounds(100,650,674,73);
add(dtxt6);
}
else if(no==2)
{
title=new JLabel(new ImageIcon("Hbtn.png"));
title.setBounds(540,50,444,79);
add(title);
title.setVisible(true);

img=new JLabel(new ImageIcon("Himage.png"));
img.setBounds(1000,232,300,336);
add(img);
img.setVisible(true);

dtxt1=new JLabel(new ImageIcon("H1.png"));
dtxt1.setBounds(100,150,438,73);
add(dtxt1);

dtxt2=new JLabel(new ImageIcon("H2.png"));
dtxt2.setBounds(100,250,296,73);
add(dtxt2);

dtxt3=new JLabel(new ImageIcon("H3.png"));
dtxt3.setBounds(100,350,607,73);
add(dtxt3);

dtxt4=new JLabel(new ImageIcon("H4.png"));
dtxt4.setBounds(100,450,514,73);
add(dtxt4);

dtxt5=new JLabel(new ImageIcon("H5.png"));
dtxt5.setBounds(100,550,680,73);
add(dtxt5);

```



```

dtxt6=new JLabel(new ImageIcon("H6.png"));
dtxt6.setBounds(100,650,664,73);
add(dtxt6);

}
else if(no==3)
{
title=new JLabel(new ImageIcon("Tbtn.png"));
title.setBounds(540,50,444,79);
add(title);
title.setVisible(true);

img=new JLabel(new ImageIcon("Timage.png"));
img.setBounds(1000,178,300,444);
add(img);
img.setVisible(true);

dtxt1=new JLabel(new ImageIcon("T1.png"));
dtxt1.setBounds(100,150,448,73);
add(dtxt1);

dtxt2=new JLabel(new ImageIcon("T2.png"));
dtxt2.setBounds(100,250,304,73);
add(dtxt2);

dtxt3=new JLabel(new ImageIcon("T3.png"));
dtxt3.setBounds(100,350,747,73);
add(dtxt3);

dtxt4=new JLabel(new ImageIcon("T4.png"));
dtxt4.setBounds(100,450,689,73);
add(dtxt4);

dtxt5=new JLabel(new ImageIcon("T5.png"));
dtxt5.setBounds(100,550,659,73);
add(dtxt5);

dtxt6=new JLabel(new ImageIcon("T6.png"));
dtxt6.setBounds(100,650,634,73);
add(dtxt6);

}
else if(no==4)
{
title=new JLabel(new ImageIcon("CAbtn.png"));
title.setBounds(540,50,444,79);
add(title);
title.setVisible(true);

```

```

img=new JLabel(new ImageIcon("CAimage.png"));
img.setBounds(1000,190,300,419);
add(img);
img.setVisible(true);

dtxt1=new JLabel(new ImageIcon("CA1.png"));
dtxt1.setBounds(100,150,680,73);
add(dtxt1);

dtxt2=new JLabel(new ImageIcon("CA2.png"));
dtxt2.setBounds(100,250,539,73);
add(dtxt2);

dtxt3=new JLabel(new ImageIcon("CA3.png"));
dtxt3.setBounds(100,350,598,73);
add(dtxt3);

dtxt4=new JLabel(new ImageIcon("CA4.png"));
dtxt4.setBounds(100,450,670,73);
add(dtxt4);

dtxt5=new JLabel(new ImageIcon("CA5.png"));
dtxt5.setBounds(100,550,600,73);
add(dtxt5);

dtxt6=new JLabel(new ImageIcon("CA6.png"));
dtxt6.setBounds(100,650,602,73);
add(dtxt6);

}
else if(no==5)
{
title=new JLabel(new ImageIcon("Thanosbtn.png"));
title.setBounds(540,50,444,79);
add(title);
title.setVisible(true);

img=new JLabel(new ImageIcon("Thimage.png"));
img.setBounds(1000,194,300,412);
add(img);
img.setVisible(true);

dtxt1=new JLabel(new ImageIcon("TH1.png"));
dtxt1.setBounds(100,150,490,73);
add(dtxt1);

dtxt2=new JLabel(new ImageIcon("TH2.png"));

```

```

dtxt2.setBounds(100,250,352,73);
add(dtxt2);

dtxt3=new JLabel(new ImageIcon("TH3.png"));
dtxt3.setBounds(100,350,640,73);
add(dtxt3);

dtxt4=new JLabel(new ImageIcon("TH4.png"));
dtxt4.setBounds(100,450,618,73);
add(dtxt4);

dtxt5=new JLabel(new ImageIcon("TH5.png"));
dtxt5.setBounds(100,550,752,73);
add(dtxt5);

dtxt6=new JLabel(new ImageIcon("TH6.png"));
dtxt6.setBounds(100,650,569,73);
add(dtxt6);

}
else if(no==6)
{
title=new JLabel(new ImageIcon("Lokibtn.png"));
title.setBounds(540,50,444,79);
add(title);
title.setVisible(true);

img=new JLabel(new ImageIcon("Limage.png"));
img.setBounds(1000,167,300,466);
add(img);
img.setVisible(true);

dtxt1=new JLabel(new ImageIcon("L1.png"));
dtxt1.setBounds(100,150,422,73);
add(dtxt1);

dtxt2=new JLabel(new ImageIcon("L2.png"));
dtxt2.setBounds(100,250,282,73);
add(dtxt2);

dtxt3=new JLabel(new ImageIcon("L3.png"));
dtxt3.setBounds(100,350,636,73);
add(dtxt3);

dtxt4=new JLabel(new ImageIcon("L4.png"));
dtxt4.setBounds(100,450,535,73);
add(dtxt4);

```

```

dtxt5=new JLabel(new ImageIcon("L5.png"));
dtxt5.setBounds(100,550,546,73);
add(dtxt5);

dtxt6=new JLabel(new ImageIcon("L6.png"));
dtxt6.setBounds(100,650,595,73);
add(dtxt6);

}
}

Description()
{
JLabel title,background;
JButton exit,back;
//declaration
setSize(1570,840);
setLayout(null);
//background image
setContentPane(new JLabel(new ImageIcon("BImage.png")));
setExtendedState(JFrame.MAXIMIZED_BOTH);
setDefaultCloseOperation(EXIT_ON_CLOSE);
setVisible(true);
back=new JButton(new ImageIcon("backbtn.png"));
back.setBounds(0,0,100,100);
back.setBackground(Color.BLACK);
add(back);

exit=new JButton(new ImageIcon("Exit.png"));
exit.setBounds(1200,650,291,79);
exit.setBackground(Color.BLACK);
add(exit);

//add elements

back.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
setVisible(false);
GameGuide g=new GameGuide();
}
});
exit.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{

```

```

setVisible(false);
System.out.println("Game Ended");
System.exit(0);
}
});
}

public static void main(String args[])
{
//Description d=new Description();
}
}

```

Reviews.java

```

import java.awt.*;
import javax.swing.JFrame;
import java.awt.event.*;
import javax.swing.*;
import java.io.*;

class Reviews extends JFrame
{
Reviews()
{
JLabel re,background,rgtxt1,rgtxt2,rgtxt3;
JTextField tf1,tf2;
JTextArea ta3;
JButton submit,exit,back;
Font f1,f2,f3;
//declaration
setSize(1570,840);
setLayout(null);
//background image
setExtendedState(JFrame.MAXIMIZED_BOTH);
setDefaultCloseOperation(EXIT_ON_CLOSE);
ImageIcon img=new ImageIcon("BImage.png");
background=new JLabel("",img,JLabel.CENTER);
background.setBounds(0,0,1570,770);
add(background);
//background image finish
re=new JLabel(new ImageIcon("RateGame.png"));
re.setBounds(580,50,362,79);
background.add(re);
//mmbutton
submit=new JButton(new ImageIcon("Submit.png"));
submit.setBounds(610,600,291,79);
submit.setBackground(Color.BLACK);
background.add(submit);

```

```

exit=new JButton(new ImageIcon("Exit.png"));
exit.setBounds(610,600,291,79);
exit.setBackground(Color.BLACK);
background.add(exit);
exit.setVisible(false);
//exit
back=new JButton(new ImageIcon("backbtn.png"));
back.setBounds(0,0,100,100);
back.setBackground(Color.BLACK);
background.add(back);

rgtxt1=new JLabel(new ImageIcon("rgtxt1.png"));
rgtxt1.setBounds(225,175,274,73);
background.add(rgtxt1);

rgtxt2=new JLabel(new ImageIcon("rgtxt2.png"));
rgtxt2.setBounds(225,275,296,73);
background.add(rgtxt2);

rgtxt3=new JLabel(new ImageIcon("rgtxt3.png"));
rgtxt3.setBounds(225,375,200,73);
background.add(rgtxt3);

//fonts
f1=new Font("SansSerif",Font.BOLD,35);
f2=new Font("SansSerif",Font.BOLD,35);
f3=new Font("SansSerif",Font.BOLD,35);

//textfield and areas
tf1=new JTextField();
tf1.setBounds(600,180,500,50);
tf1.setFont(f1);
background.add(tf1);

tf2=new JTextField();
tf2.setBounds(600,280,500,50);
tf2.setFont(f2);
background.add(tf2);

ta3=new JTextArea();
ta3.setBounds(600,380,500,150);
ta3.setFont(f3);
background.add(ta3);

back.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)

```

```

{
setVisible(false);
MainMenu m=new MainMenu();
}
});
submit.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
String vtf1=tf1.getText();
String vtf2=tf2.getText();

if(vtf1.trim().equals("")||vtf2.trim().equals(""))
{
System.out.println("Enter All Fields");
submit.setVisible(true);
exit.setVisible(false);
}
else
{
submit.setVisible(false);
exit.setVisible(true);
try
{
String reviewfile=tf1.getText()+"\t\t\t"+tf2.getText()
+"\t\t\t"+ta3.getText()+"\n";
char reviewtext[]=reviewfile.toCharArray();
FileWriter f = new FileWriter("((((Reviews.txt",true);
f.write(reviewtext);
f.close();
}
catch(IOException io)
{
System.out.println("IOException caught");
}
}
});
//all actions
exit.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
setVisible(false);
System.out.println("Game Ended");
System.exit(0);
}
});

```

```

setVisible(true);
}
public static void main (String args[])
{
Reviews r=new Reviews();
}
}

```

Credits.java

```

import java.awt.*;
import javax.swing.JFrame;
import java.awt.event.*;
import javax.swing.*;

class Credits extends JFrame
{
Credits()
{
JLabel cr,background,txt1,txt2,txt3,txt4;
JButton exit,back;
//declaration
setSize(1570,840);
setLayout(null);
//background image
setExtendedState(JFrame.MAXIMIZED_BOTH);
setDefaultCloseOperation(EXIT_ON_CLOSE);
ImageIcon img=new ImageIcon("BImage.png");
background=new JLabel("",img,JLabel.CENTER);
background.setBounds(0,0,1570,770);
add(background);
//background image finish
cr=new JLabel(new ImageIcon("Credits.png"));
cr.setBounds(580,50,362,79);
background.add(cr);
//mmbutton
exit=new JButton(new ImageIcon("Exit.png"));
exit.setBounds(610,600,291,79);
exit.setBackground(Color.BLACK);
background.add(exit);
//exit

back=new JButton(new ImageIcon("backbtn.png"));
back.setBounds(0,0,100,100);
back.setBackground(Color.BLACK);
background.add(back);

txt1=new JLabel(new ImageIcon("txt1.png"));
txt1.setBounds(300,175,441,73);

```



```

background.add(txt1);

txt2=new JLabel(new ImageIcon("txt2.png"));
txt2.setBounds(300,275,440,73);
background.add(txt2);

txt3=new JLabel(new ImageIcon("txt3.png"));
txt3.setBounds(300,375,300,73);
background.add(txt3);

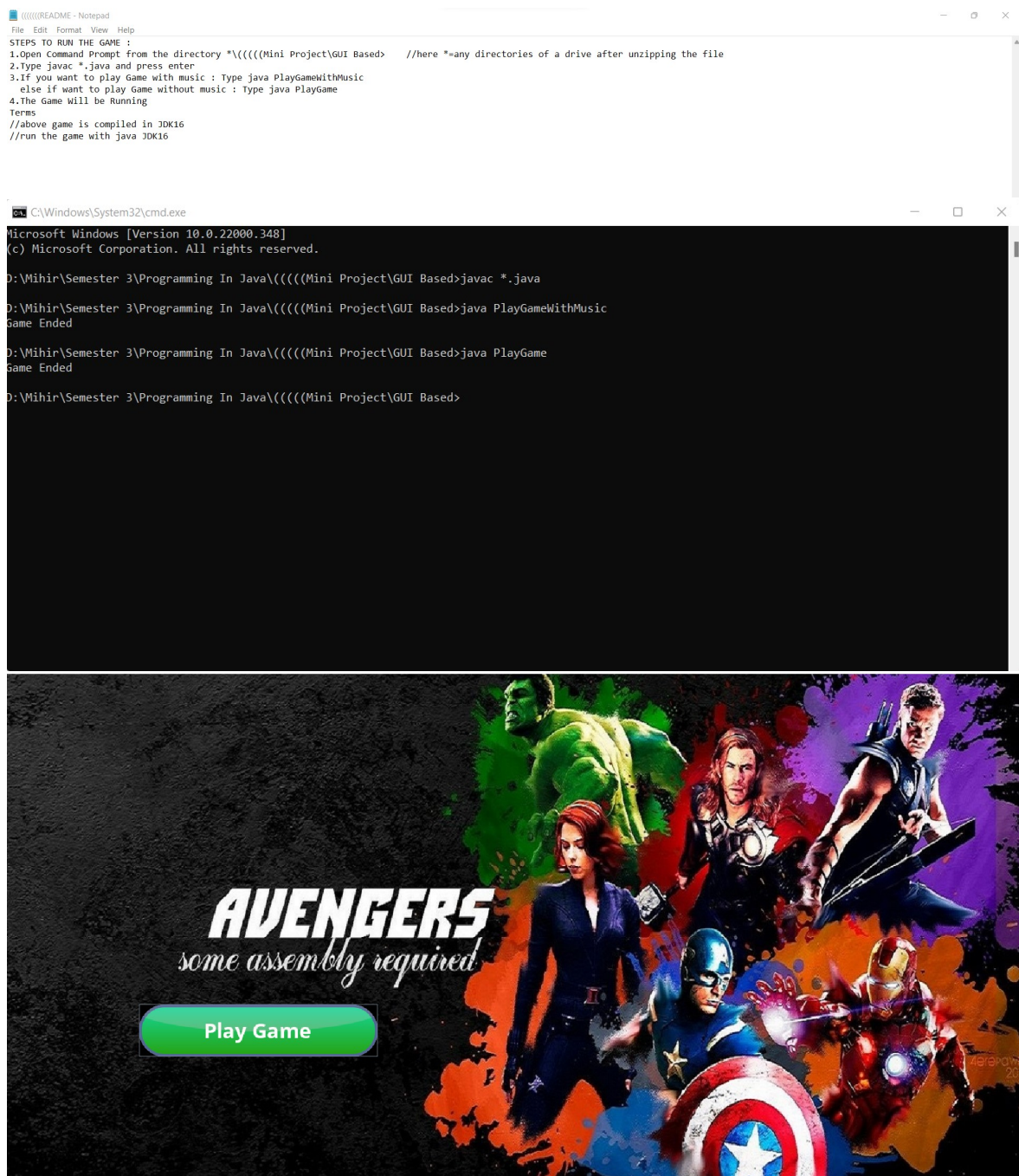
txt4=new JLabel(new ImageIcon("txt4.png"));
txt4.setBounds(300,475,823,73);
background.add(txt4);

//all actions
back.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
setVisible(false);
MainMenu m=new MainMenu();
}
});
exit.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
setVisible(false);
System.out.println("Game Ended");
System.exit(0);
}
});
setVisible(true);
}
public static void main (String args[])
{
Credits c=new Credits();
}
}

```

Chapter 6

Outputs





Main Menu

Play Game



Game Guide

Rate Game

Credits

Exit



Choose Avenger

Iron Man

Hulk

Thor

Captain America

Exit

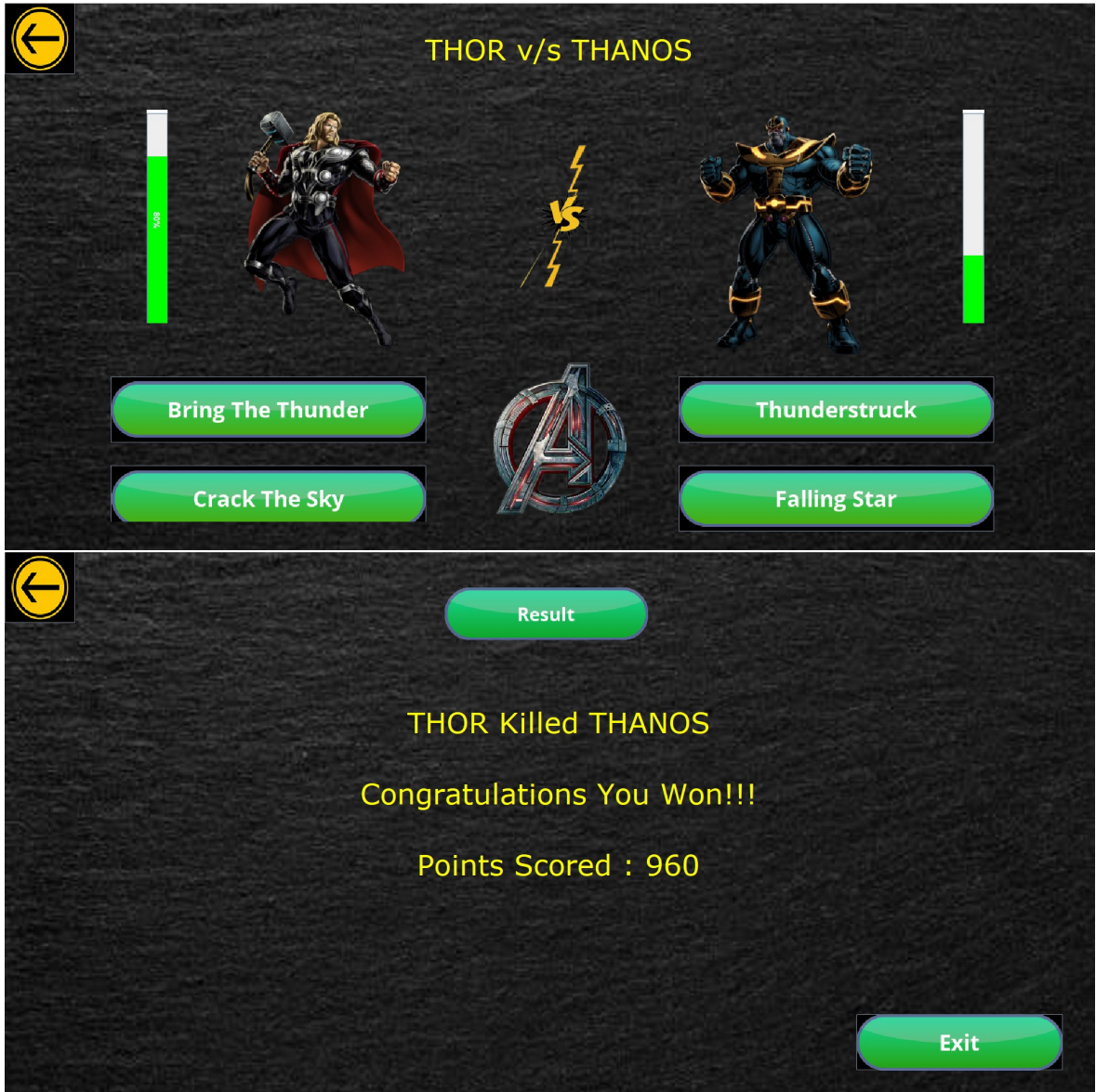


Choose Villain

Thanos

Loki

Exit



\\\\\\Battle Log - Notepad

File Edit Format View Help

Battle Log	Result	Points
IRON MAN v/s THANOS	IRON MAN Killed THANOS	Points Scored : 960
THOR v/s THANOS	THOR Killed THANOS	Points Scored : 960



Game Guide

Iron Man

Hulk

Thor

Captain America

Thanos

Loki

Exit



Iron Man

IRON MAN'S BASE HP : 440

IRON MAN ATTACKS

(1)LASER BEAM (DAMAGE : 80)

(2)POWER DRIVE (DAMAGE : 60)

(3)THRUSTER UPPERCUT (DAMAGE : 40)

(4)REPULSOR SHOT (DAMAGE : 20)



Exit



Rate Game

ENTER NAME :

Mihir

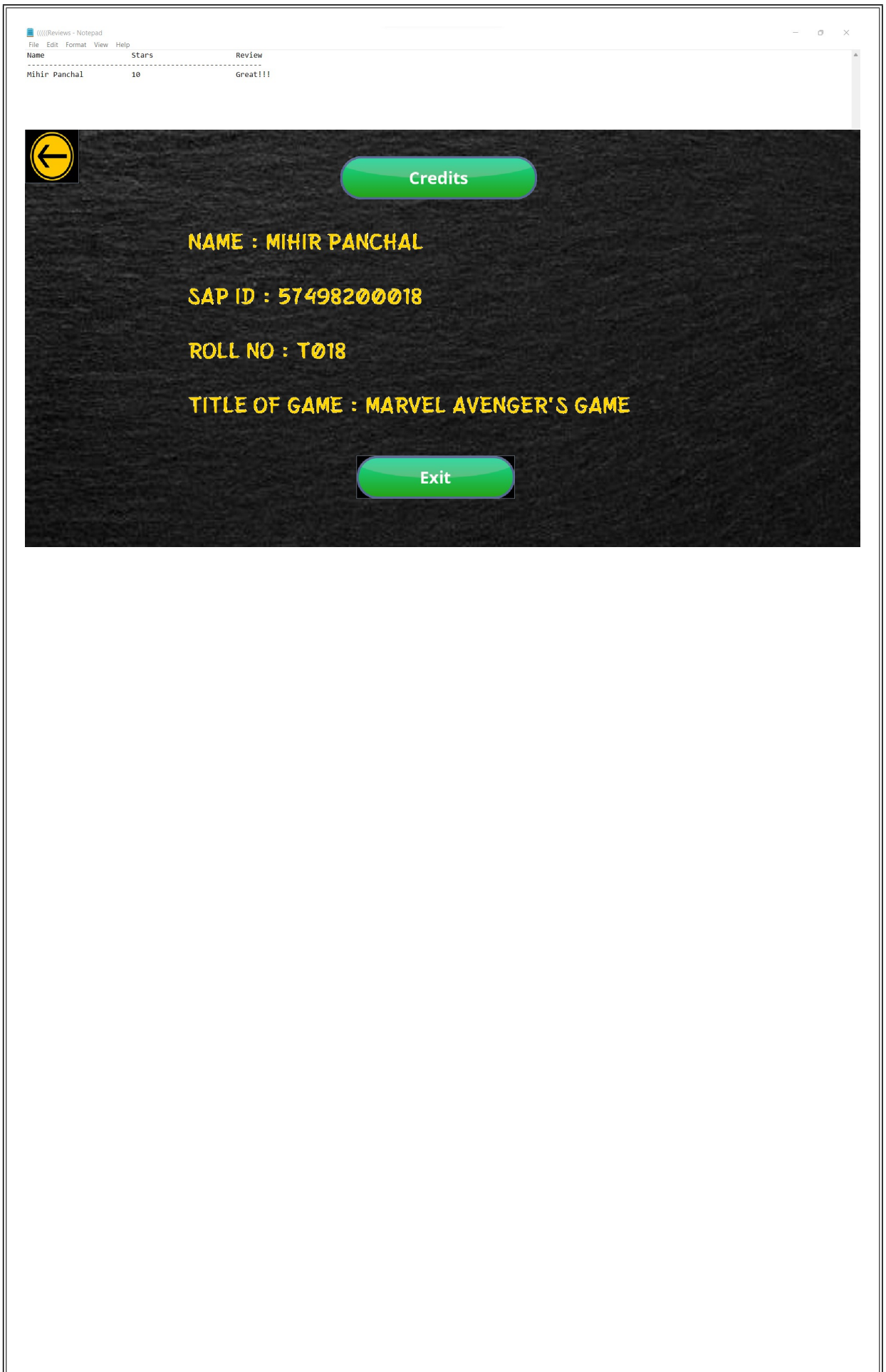
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REVIEWS :

Great!!!

Submit



Chapter 7

Conclusion

Through this Mini Project I was able to learn (more in depth) and implement Java concepts altogether in multiple program. During Semester 2, the concept of this project was implemented using C++ Language. The same concept is enhanced, improved and is loaded with additional features - Graphics, Audio and GUI using Java Swing. Marvel Avenger's Game has used the Java Swing Concept extensively thus by creating a rich GUI Game for children aged 7-16. Also, I was successful in debugging and solving errors in my program by using concepts learnt in the lectures conducted. This Mini Project can be compiled and runned by JDK 16 and was written with Sublime Text Editor.

Future Scope : In the Future, Marvel Avenger's Game is eyeing to add additional Features like a Time factor to Battles using Timer Class, LeaderBoard system and becoming an open source multi-platform game for children aged 7-16 that can be played online as well as available to download(through Github) and play it offline.