# Java Programming Lab

| Ex. No. 9 | APPLET |
|---|---|
| **Date of Exercise** | 02-03-2018 |

**Aim:**

Create an applet program to simulate sunset.

**Algorithm:**

1) Start.
2) Create a class sunset which extends Applet, inside the class we have two functions init and start to do the operation.
3) Then, we have created the shape of the sun and the background in the paint function, and set the X, Y coordinates.
4) End.

**Source Code:**

```
package applet;

import java.applet.Applet;

import java.awt.Color;

import java.awt.Graphics;

import java.awt.event.MouseEvent;

import java.awt.event.MouseListener;

public class sunset extends Applet{

    int x,y;

        public void init() {

                setBackground(Color.CYAN);

                addMouseListener(new MouseListener() {

                        @Override
```

```java
                public void mouseEntered(MouseEvent e) {
System.out.println("Entered");}

                @Override

                public void mouseClicked(MouseEvent e) {

                        x=e.getX();

                        y=e.getY();}});

        }

        public void start() {

                Thread t= new Thread(new Runnable() {

                        public void run() {

                                while(true){

                                        for(int i=0;i<o.length;i++){

                                                if(i==1){

                                                        o[i]++;}}

                                        if(o[1]>400){

                                                b=1;}

                                        if(o[1]>600){

                                                b=2;}

                                        try {

                                                Thread.sleep(20);}

                                         catch (InterruptedException e) {

                                                e.printStackTrace();}

                                        repaint();}}});

                t.start();}

        int o[] ={ 600,80,70,70};
```

```java
int b=0;


public void paint(Graphics g) {
        if(b==1){
                setBackground(Color.ORANGE);}
        if(b==2){
                setBackground(Color.BLACK);}
                        g.setColor(Color.ORANGE);
                        g.fillOval(o[0] , o[1], o[2], o[3]);
                        if(b==1){
                                g.setColor(Color.red);
                                g.fillOval(o[0] , o[1], o[2], o[3]);}
        showStatus("("+x+","+y+")");
        g.setColor(Color.GREEN);
        g.fillRect(1, 600, 10000, 600);
        g.setColor(Color.LIGHT_GRAY);
        g.fillRect(995, 601, 150, 70);
        g.setColor(Color.gray);
        g.fillRect(995, 520, 150, 90);
        g.setColor(Color.YELLOW);
        g.drawRect(1076, 560, 20, 10);
        g.drawRect(1093, 560, 20, 10);}}
```
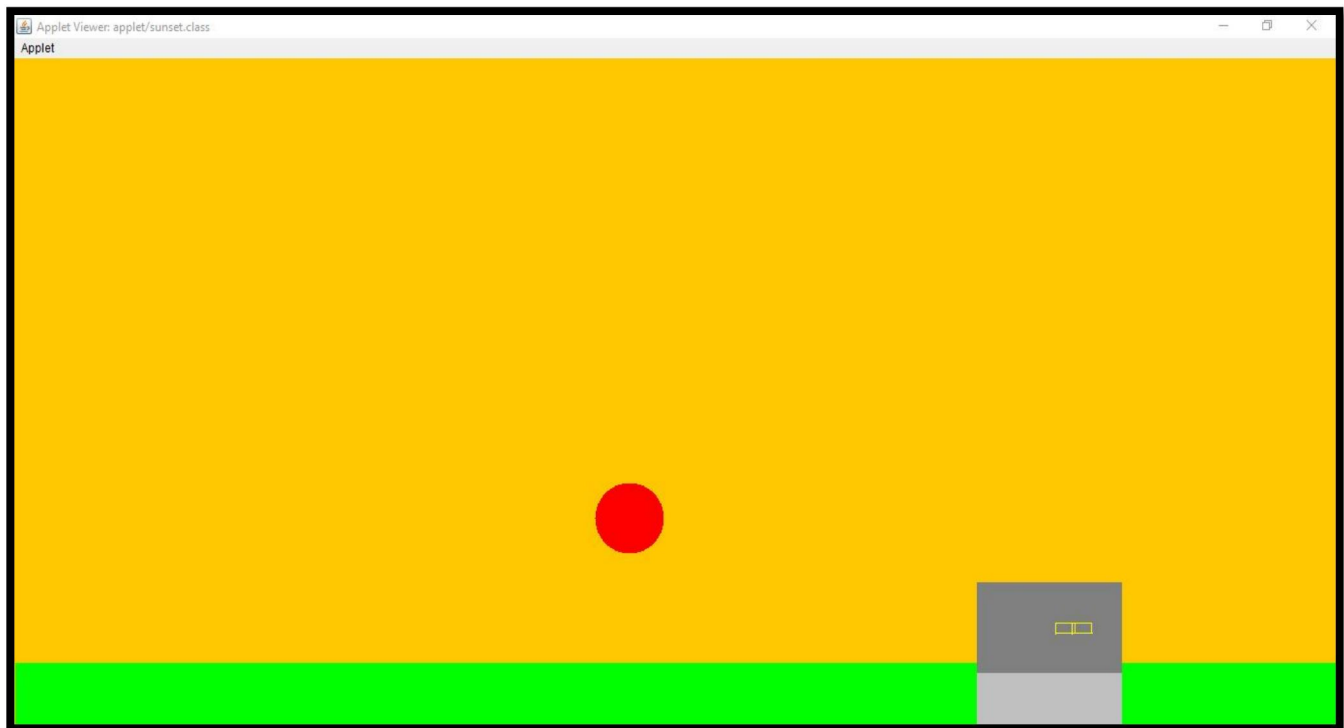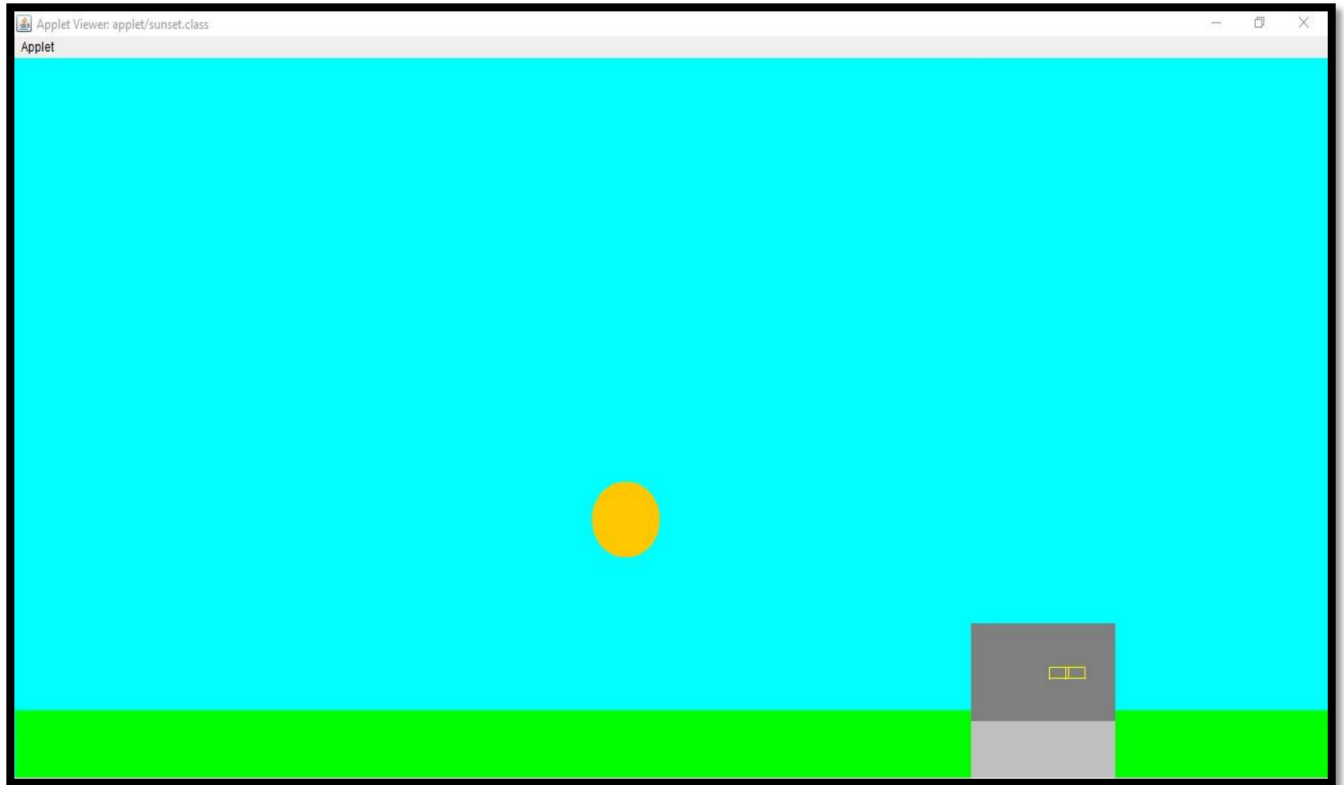
**Input & Output:**

**Video URL:**

**Result:**

The program to simulate sunset in applet is implemented successfully and the output is verified.