

4. b. Write a JAVA program that develops an Applet shows the various stages of an applet life cycle.

// save as First.java

```
import java.applet.*;
import java.awt.*;

public class First extends Applet
{
    int length, breadth;

    public void init( )                                // Used to initialize
    {
        System.out.println("Welcome to Init method ");    //observe in cmd prompt while run html
        setBackground(Color.green);
        setForeground(Color.black);
        length=10;
        breadth=30;
    }

    public void start( )                                //Executed when applet started
    {
        System.out.println("Welcome to Start method ");    //observe in cmd prompt while maximize applet window
    }

    public void paint(Graphics g)                        //GUI shown in applet window
    {
        System.out.println("Welcome to Paint method ");    //observe in cmd prompt while maximize applet window

        int area=length*breadth;
        g.drawString("Area of Rectangle is "+area ,100,100);
    }

    public void stop( )                                //suspend current task
    {
        System.out.println("Welcome to Stop method ");    //observe in cmd prompt while minimize applet window
    }

    public void destroy( )                                //close or destroy the applet window
    {
        System.out.println("Welcome to destroy method ");    //observe in cmd prompt while close applet window
    }
}
```

// Save as Test.html

```
<html>

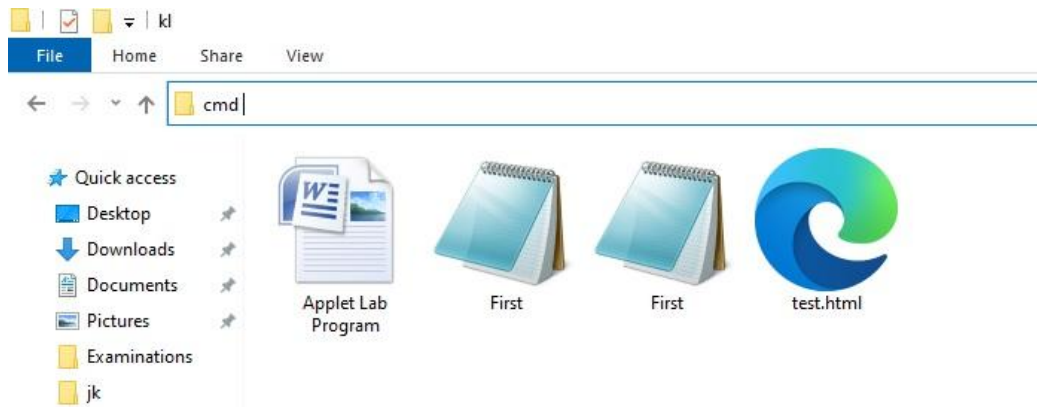
<applet code="First.class" width=300 height=300>

</applet>

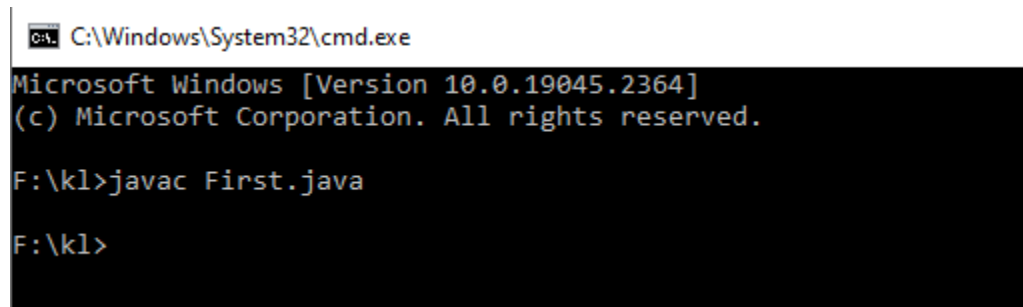
</html>
```

Output:

Step 1: Open command prompt from the same folder where our files present (type **cmd** in the folder path and enter cmd prompt will open for that path)



Step 2: Compile java program (students needs to clear errors if any)



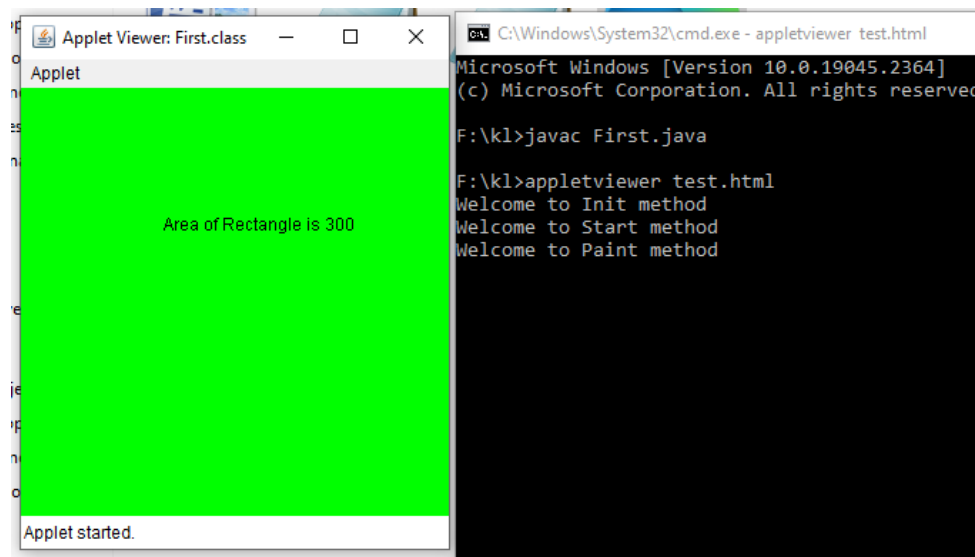
Step 3: If no errors then type appletviewer command to open Applet.

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.2364]
(c) Microsoft Corporation. All rights reserved.

F:\kl>javac First.java

F:\kl>appletviewer test.html
```

Now Applet window is created and shown to you (same time observe cmd prompt int, start paint methods are invoked)




Minimize the applet and observe cmd prompt , stop method is invoked.

```
C:\Windows\System32\cmd.exe - appletviewer test.html
Microsoft Windows [Version 10.0.19045.2364]
(c) Microsoft Corporation. All rights reserved.

F:\kl>javac First.java

F:\kl>appletviewer test.html
Welcome to Init method
Welcome to Start method
Welcome to Paint method
Welcome to Stop method
```

Close the applet window then stop and destroy method will be invoked.

 C:\Windows\System32\cmd.exe

```
Microsoft Windows [Version 10.0.19045.2364]  
(c) Microsoft Corporation. All rights reserved.
```

```
F:\kl>javac First.java
```

```
F:\kl>appletviewer test.html
```

```
Welcome to Init method
```

```
Welcome to Start method
```

```
Welcome to Paint method
```

```
Welcome to Stop method
```

```
Welcome to Start method
```

```
Welcome to Paint method
```

```
Welcome to Stop method
```

```
Welcome to destroy method
```

```
F:\kl>
```