LAB 12

Q.1) What is Applet?

An **applet** is a Java program that runs in a Web browser. An applet can be a fully functional Java application because it has the entire Java API at its disposal.

There are some important differences between an applet and a standalone Java application, including the following −

- An applet is a Java class that extends the java.applet.Applet class.

- A main() method is not invoked on an applet, and an applet class will not define main().

- Applets are designed to be embedded within an HTML page.

- When a user views an HTML page that contains an applet, the code for the applet is downloaded to the user's machine.

- A JVM is required to view an applet. The JVM can be either a plug-in of the Web browser or a separate runtime environment.

- The JVM on the user's machine creates an instance of the applet class and invokes various methods during the applet's lifetime.

- Applets have strict security rules that are enforced by the Web browser. The security of an applet is often referred to as sandbox security, comparing the applet to a child playing in a sandbox with various rules that must be followed.

- Other classes that the applet needs can be downloaded in a single Java Archive (JAR) file.

Q.2) What is life cycle of an applet?

In Java, an applet is a special type of program embedded in the web page to generate dynamic content. Applet is a class in Java.

The applet life cycle can be defined as the process of how the object is created, started, stopped, and destroyed during the entire execution of its application. It basically has five core methods namely init(), start(), stop(), paint() and destroy().These methods are invoked by the browser to execute.

Along with the browser, the applet also works on the client side, thus having less processing time.

Q.3) Create hello world applet

HTML

<title> Test Applet Page </title>

 <body>

 <applet code=HelloWorld.class width=200 height=200>

</applet>

</body>

JAVA

```java
import java.awt.Graphics;
import java.applet.Applet;

public class HelloWorld extends Applet2
{
    public void paint(Graphics g)3
{
    g.drawString("Hello World!",20,20);4    }
}
```