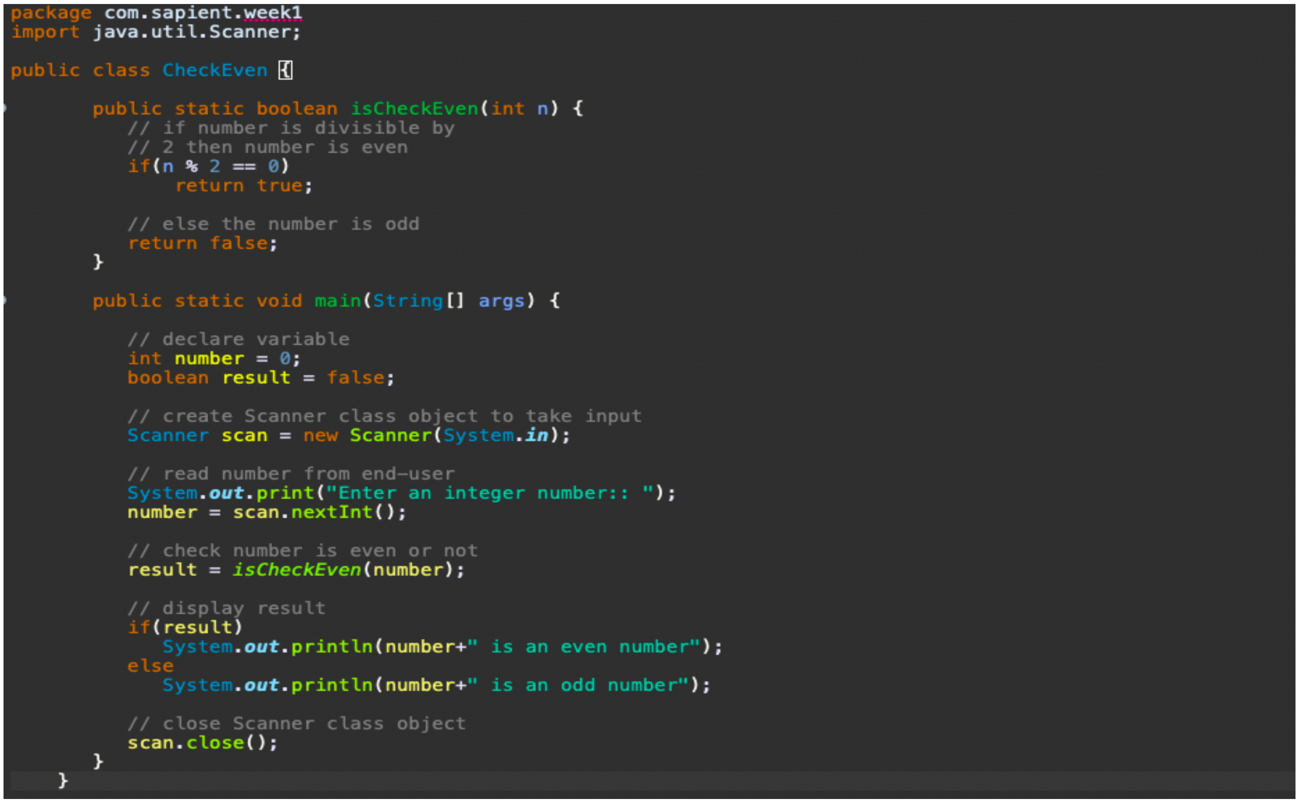
ASSESSMENT ANSWERS WEEK1

QUESTION 1: JAVAFIRSTPROJECT

STEPS:

1. I am using STS4 for creating this Project but we can create Maven Project in CLI by giving input as **"mvn archetype:generate -DgroupId=com.sapient.week1 -DartifactId=JavaFirstProject -DarchetypeArtifactId=maven-archetype-quickstart -DinteractiveMode=false"**
2. Open Spring Tools Suite 4
3. Go to File -> New -> Project
   and create one project as "JavaFirstProject"
4. After that create a new class "CheckEven" which will determine if the input you are giving is even or odd.
5. After that create a method as " Public Boolean Check(int)" .
6. Create If and Else for checking the condition (n%2==0)
7. After that create another method as "Public static void" and inside that declare variable as int number =0 and bool result = false;
8. Create a Scanner class object to take the input and read number from the end user.
9. If the Number is divisible by 2 then return result = true or False if not !!.
10. Check number is Odd or Even and displays the result and after that closeScanner object.

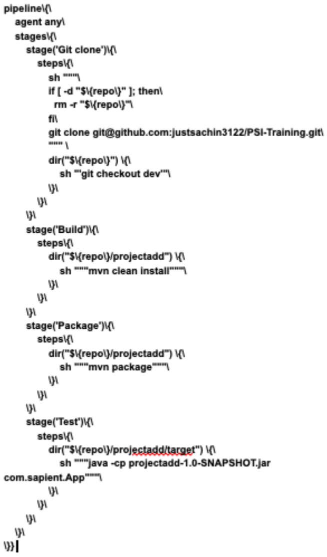
CODE:



```
package com.sapient.week1
import java.util.Scanner;

public class CheckEven {

       public static boolean isCheckEven(int n) {
          // if number is divisible by
          // 2 then number is even
          if(n % 2 == 0)
              return true;

          // else the number is odd
          return false;
       }

       public static void main(String[] args) {

          // declare variable
          int number = 0;
          boolean result = false;

          // create Scanner class object to take input
          Scanner scan = new Scanner(System.in);

          // read number from end-user
          System.out.print("Enter an integer number:: ");
          number = scan.nextInt();

          // check number is even or not
          result = isCheckEven(number);

          // display result
          if(result)
             System.out.println(number+" is an even number");
          else
             System.out.println(number+" is an odd number");

          // close Scanner class object
          scan.close();
       }
    }
```

QUESTION 2: CREATE JENKINS PIPELINE
STEPS:

1. Go to Terminal and give input as "J**enkins-lts"a**fter that we can use Jenkins on our Local Host .
2. Go to the Local host enter the Credentials required and after that you'll be on the Dashboard.
3. Go to Manage Plugins and add the plugins required for pipeline project.
4. Now go to Create Job and name your Pipeline Project and sele**ct Pipeline proje**ct.
5. As we are assuming our pipeline is not multibranched so that we're choosing "Pipeline" and click "OK"
6. Select **Poll SCM** and in "P**ipeline Definition Select Pipeline from Script" a**nd in Script Path select **Jenkins File.**
7. Prepare a Jenkins File in which you will mention the Stages for **Cloning,Build,Package and Test/Deploy.**



```
pipeline\{\
  agent any\
  stages\{\
    stage('Git clone')\{\
      steps\{\
        sh """\
        if [ -d "$\{repo\}" ]; then\
          rm -r "$\{repo\}"\
        fi\
        git clone git@github.com:justsachin3122/PSI-Training.git\
        """ \
        dir("$\{repo\}") \{\
          sh '''git checkout dev'''\
        \}\
      \}\
    \}\
    stage('Build')\{\
      steps\{\
        dir("$\{repo\}/projectadd") \{\
          sh """mvn clean install"""\
        \}\
      \}\
    \}\
    stage('Package')\{\
      steps\{\
        dir("$\{repo\}/projectadd") \{\
          sh """mvn package"""\
        \}\
      \}\
    \}\
    stage('Test')\{\
      steps\{\
        dir("$\{repo\}/projectadd/target") \{\
          sh """java -cp projectadd-1.0-SNAPSHOT.jar
com.sapient.App"""\
        \}\
      \}\
    \}\
  \}\
\}}
```

8. Now Click on Build Now and that will build a pipeline after c**ompiling ,testing and Deployment of Code.**
9. After that it will show Declarative Checkout SCM ,Compile ,Testing and Deployment Stage duration.
10. After that a src target folder will be created incluming a **POM.xml** file which includes the Maven Properties,,Dependencies and the Compiler Version.