

2.1 Write a program to generate a user-defined exception called NegativeAgeException if the user inputs negative value for age.

2.2 Code With comments

```
package assignments;

import java.util.Scanner;

public class NegativeAgeException {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in); //Declaring Scanner to take
input from user
        System.out.println("Enter Your Age");
        int age = sc.nextInt(); //Taking input from user

        try
        {
            if(age > 0)
            {
                System.out.println("Valid Age");//Valid age
            }
            else
            {
                System.out.println("Invalid age");
                throw new Exception();//throws an Exception if age is negative
            }

        }
        catch(Exception ex)
        {
            System.out.println(ex); //Prints exception description
        }

    }

}
```

2.3 Explanation of the Code.

Created scanner class to get the user input. Used Exception handling try and catch block.

If the age is valid then it will print valid age if it is negative it will go to else block and print invalid age and exception handled by catch block.

2.4 Output

```
Acadgild ▸ src/main/java ▸ assignments ▸ NegativeAgeException ▸ main(String[]) : void
1 package assignments;
2
3 import java.util.Scanner;
4
5 public class NegativeAgeException {
6
7     public static void main(String[] args) {
8         Scanner sc = new Scanner(System.in); //Declaring Scanner to take input from user
9         System.out.println("Enter Your Age");
10        int age = sc.nextInt(); //Taking input from user
11
12        try
13        {
14            if(age > 0)
15            {
16                System.out.println("Valid Age");//Valid age
17            }
18            else
19            {
20                <terminated> NegativeAgeException [Java Application] C:\Program Files\Java\jre1.8.0_191\bin\javaw.exe (24-Nov-2018, 9:45:11 PM)
Enter Your Age
-2
Invalid age
java.lang.Exception
```