Chapter 12 Practice Set Questions by Munawar

Questions

1. Write a Java program to demonstrate Syntax, logical and runtime errors.

Solution

```
      // Question 1
           // int a=7     // syntax error because semicolon is missed


           int age=78;
           int year_born=2000-78; // logical error
//           System.out.println(10/0);
```

2. Write a Java program that print “Haha” during Arithmetic exception and “Hehe” during an illegal argument exception.

Solution

```
           // Question 2
           try {
               int a=877/0; // print hehe

//                 int b=666/9;  // print haha
           }catch (IllegalArgumentException e){
               System.out.println("Haha");
           }catch (ArithmeticException e){
               System.out.println("Hehe");
```

```
// Question 2
goodMorning goodt=new goodMorning();
welcome wellt=new welcome();
goodt.start();
wellt.start();
```

3. Write a program that allows you to keep accessing an array until a valid index is given id max retries exceed 5 print “Error”.

Solution

```java
// Question 3
 boolean flag=true;
 int [] marks=new int[3];
 marks[0]=99;
 marks[1]=100;
 marks[2]=120;

 Scanner sc=new Scanner(System.in);
 int index;
 int i=0;
 while (flag && i<5){

     try {
         System.out.println("Enter the value of index: ");
         index=sc.nextInt();
         System.out.println("The value of marks[index] is "+marks[index]);
         break;
     }catch (Exception e){
         System.out.println("Invalid Index");
         i++;
     }
     if(i>=5){
         System.out.println("Error...");
     }


 }
```

4. Modify program in Question 3 to throw a custom exception of more returns are reached.

Solution

Self-Question

5. Wrap the program in Question 3 inside a method which throws your custom Exception.

Solution

Self-Question

Source code:

```java
import java.security.PublicKey;
import java.util.Scanner;
```

```java
public class Errors_Java {

        public static void main (String[]args){
//
//        // Question 1
//             // int a=7     // syntax error because semicolon is missed
//
//
//             int age=78;
//             int year_born=2000-78; // logical error
////             System.out.println(10/0);


//             // Question 2
//             try {
//                 int a=877/0; // print hehe
//
////                   int b=666/9;  // print haha
//             }catch (IllegalArgumentException e){
//                 System.out.println("Haha");
//             }catch (ArithmeticException e){
//                 System.out.println("Hehe");
//             }

            // Question 3
             boolean flag=true;
             int [] marks=new int[3];
             marks[0]=99;
             marks[1]=100;
             marks[2]=120;

             Scanner sc=new Scanner(System.in);
             int index;
             int i=0;
             while (flag && i<5){

                 try {
                     System.out.println("Enter the value of index: ");
                     index=sc.nextInt();
                     System.out.println("The value of marks[index] is
"+marks[index]);
                     break;
                 }catch (Exception e){
                     System.out.println("Invalid Index");
                     i++;
                 }
                 if(i>=5){
                     System.out.println("Error...");
                 }


             }

        }
    }
```

Thank You