Assignment_09

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/*
1. Write a Java program that throws an arithmetic exception
  and catch it using a try-catch block.
*/
package com.assign9;

import java.util.Scanner;

public class Q1 {

	public static void main(String[] args)
	{
		Scanner sc = new Scanner(System.in);
		System.out.print("Enter num1 : ");
		int num1 = sc.nextInt();
		System.out.print("Enter num2 : ");
		int num2 = sc.nextInt();

		try
		{
			if(num2 == 0)
				throw new ArithmeticException("Divide by zero");
			int result = num1/num2;
			System.out.println("result : "+result);

		}
		catch(ArithmeticException ex)
		{
			System.out.println("Invalid divide by zero");
		}

	}
```

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}

/*
2. Write a Java program to create a method that takes an
  integer as a parameter and throws an exception if the number is odd.

*/
package com.assign9;

import java.util.Scanner;

public class Q2
{
	public static void oddCheck(int num)
	{
		try
		{
			if(num%2 != 0)
				throw new ArithmeticException("Divide by zero");
			System.out.println("Odd number : "+num);

		}
		catch(ArithmeticException ex)
		{
			System.out.println("odd number exception");
		}
	}

	public static void main(String[] args)
	{
		Scanner sc = new Scanner(System.in);
		System.out.print("Enter num : ");
		int num = sc.nextInt();
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		Q2.oddCheck(num);



	}

}

/*
3. Write a Java program throws an array index out of bound exception.

*/
package com.assign9;



public class Q3
{
	public static void arraySIzeCheck(int arr[])
	{
		int n = arr.length;
		try
		{
			if(n > 3)
				throw new ArrayIndexOutOfBoundsException("Invalid Index");
			System.out.println("Array Length : "+n);

		}
		catch(ArrayIndexOutOfBoundsException ex)
		{
			System.out.println("ArrayIndexOutOfBoundsException occured....");
		}
	}

	public static void main(String[] args)
	{
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		int arr[] = new int[] {10,20,30,40,50};

	Q3.arraySIzeCheck(arr);



	}


}
```

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/*
4. Write a code for arithmetic exception using one try block & multiple catch block
   & check which catch block handle that exception.

*/
package com.assign9;

import java.util.InputMismatchException;
import java.util.Scanner;

public class Q4 {

	public static void main(String[] args) throws Exception
	{
		Scanner sc = new Scanner(System.in);
		System.out.print("Enter num1 : ");
		int num1 = sc.nextInt();
		System.out.print("Enter num2 : ");
		int num2 = sc.nextInt();

		try
		{
			if(num2 == 0)
				throw new ArithmeticException("Divide by zero");
			int result = num1/num2;
			System.out.println("result : "+result);

		}
		catch(ArithmeticException ex)
		{
			System.out.println("ArithmeticException occured....");
		}
		catch(InputMismatchException ex)
		{
			System.out.println("InputMismatchException occured....");
		}
		catch(RuntimeException ex)
		{
			System.out.println("RuntimeException occured....");
		}


	}

}
```