

LAB-10

202203028

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Question-1:

Code:

```
package Lab_9;
import java.util.*;
public class Lab_9_1
{
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        boolean t=true;
        int a,b;
        double c;
        while(t){
            try{
                a=sc.nextInt();
                b=sc.nextInt();
                c=a/b;
                System.out.println("a/b = "+(double)a/b);
                t=false;
            }
            catch(Exception ex){
                System.out.println("division by zero is not possible
, Enter diffrent numbers");
            }
        }
    }
}
```

Output :

```
PS C:\Users\Admin\Desktop\OOPs-LAB> javac Lab_9/Lab_9_1.java
PS C:\Users\Admin\Desktop\OOPs-LAB> java Lab_9.Lab_9_1
2 0
division by zero is not possible , Enter different numbers
█
```

Question-2:

Code:

```
package Lab_9;

import java.util.*;
public class Lab_9_2
{

    public static double calculateAvrage(int a[]) throws Exception{
        int sum=0;
        for(int i=0;i<a.length;i++){
            sum += a[i];
        }
        return sum/a.length;
    }

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        boolean t=true;
        int n = sc.nextInt();
        int a[] = new int[n];

        for(int i=0;i<n;i++){
            a[i]= sc.nextInt();
        }

        try{
            System.out.println(calculateAvrage(a));
        }
        catch(Exception ex){
            System.out.println("Array is empty ");
        }
    }
}
```

```
    }  
  
    }  
}
```

Output:

```
PS C:\Users\Admin\Desktop\OOPs-LAB> javac Lab_9/Lab_9_2.java  
PS C:\Users\Admin\Desktop\OOPs-LAB> java Lab_9.Lab_9_2  
0  
Array is empty  
PS C:\Users\Admin\Desktop\OOPs-LAB> █
```

Question-3:

Code:

```
package Lab_9;  
import java.util.*;  
public class Lab_9_3  
{  
  
    public static void main(String[] args) {  
        Scanner sc = new Scanner(System.in);  
        int age=0;  
        System.out.println("Enter your age");  
        while(age <= 0){  
            try {  
                age = sc.nextInt();  
                if(age<=0)  
                    throw new IllegalArgumentException();  
            } catch (IllegalArgumentException e) {  
                System.out.println("Entered value of age is not  
valid , try again");  
            }  
        }  
    }  
}
```

Output:

```
PS C:\Users\Admin\Desktop\OOPs-LAB> java Lab_9.Lab_9_3
Enter your age
-12
Entered value of age is not valid , try again
23
PS C:\Users\Admin\Desktop\OOPs-LAB> █
```

Question-4:

Code:

```
package Lab_9;
import java.util.*;
public class Lab_9_4
{
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = 0;
        System.out.println("Enter number ");
        try{
            n=sc.nextInt();
            for(int i=2;i<Math.sqrt(n);i++){
                if(n%i==0){
                    System.out.println("Not a Prime Number");
                    return;
                }
            }
            System.out.println(n+" is a Prime Number");
        }
        catch(InputMismatchException e){
            System.out.println("Invalid input");
        }
    }
}
```

Output:

```
PS C:\Users\Admin\Desktop\OOPs-LAB> java Lab_9.Lab_9_4
Enter number
2.3
Invalid input
PS C:\Users\Admin\Desktop\OOPs-LAB> █
```

Question-5:

Code:

```
package Lab_9;
import java.sql.Array;
import java.util.*;
public class Lab_9_5
{
    public static String getWord(String a[],int i) throws
    ArrayIndexOutOfBoundsException{
        return a[i];
    }
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        String s = sc.nextLine();

        String arr[] = s.split(" ");
        int i,n=arr.length;

        System.out.println("Enter the index :");
        i=sc.nextInt();

        try {
            System.out.println("Word at Index "+i+" is :
"+getWord(arr,i));
        } catch (Exception e) {
            System.out.println("Entered value of index is invalid");
        }

    }
}
```

Output:

```
PS C:\Users\Admin\Desktop\OOPs-LAB> java Lab_9.Lab_9_5
asds asdsdfa asfsd asfdaf asfdasf
Enter the index :
6
Entered value of index is invalid
PS C:\Users\Admin\Desktop\OOPs-LAB> 
```