

Rajalakshmi Engineering College

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Batch: 2028

Degree: B.E - CSE

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2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 8_Q5

Attempt : 1

Total Mark : 10

Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

In a file management system, users are required to provide a valid file name when creating new files. The system enforces specific rules for file names to maintain consistency and avoid potential issues. Your task is to implement a Java program named `FileNameValidator` that takes user input for a file name and validates it according to the specified rules.

Rules for Valid File Name:

The file name must consist of alphanumeric characters (letters and digits) only. The file name must have a minimum length of 3 characters.

Implement a custom exception, `FileNameValidator`, to handle cases where the entered filename does not meet the specified criteria.

Input Format

The input consists of a string S, representing the desired filename.

Output Format

The output is displayed in the following format:

If the entered file name meets the specified criteria, the program outputs

"Valid file name"

If the entered file name does not meet the criteria and triggers the `InvalidFileNameException`, the program outputs

"Error: Invalid file name. It must be alphanumeric and have a minimum length of 3 characters."

Refer to the sample output for formatting specifications.

Sample Test Case

Input: myfile123

Output: Valid file name

Answer

```
import java.util.Scanner;
class InvalidFileNameException extends Exception{
    public InvalidFileNameException(String s){
        super(s);
    }
}
class Main{
    public static void check(String s) throws InvalidFileNameException{
        int l=s.length();
        if(l<3){
            throw new InvalidFileNameException("It must be alphanumeric and have
a minimum length of 3 characters.");
        }
        else{
            for(int i=0;i<l;i++){
                if(!Character.isLetterOrDigit(s.charAt(i))){
                    throw new InvalidFileNameException("It must be alphanumeric and
```

have a minimum length of 3 characters.");

}

}

}

System.out.print("Valid file name");

}

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

String s=sc.nextLine();

try{

check(s);

}

catch(InvalidFileNameException e){

System.out.print("Error: Invalid file name. "+e.getMessage());

}

}

}

Status : Correct

Marks : 10/10