

Java

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Screening Test

Completed on : 26-Nov-2024 04:17 PM

#	Question	Response	Marks
1	Have you fully completed your education and prepared to work	Yes	1
2	Have you taken any long term training course on Java Technologies	Yes	1
3	Have you recently completed your education and training, and there is no major Gap (more than one year after the education)	Yes	1
4	Are you, willing to work on-premises (there is no work from home)	Yes	1
5	Can you write simple Java Programs on your own	Yes	1
6	Are you, available immediately to join us, if we hire you	Yes	1
7	Did you complete any kind of Developer Certification in Java	Yes	1
8	Do you know how to write unit testcases using Junit	Yes	1
9	if we hire you, will you be prepared to stay and work with us at least for two years	Yes	1
10	Will you be flexible any role in Software Engineering	Yes	1
11	Explain about yourself why you are the right candidate for this Job	video response	1

Overall Score : 11/11 (Promoted)

Coding Test

Completed on : 26-Nov-2024 04:20 PM

1. Write a simple EMI calculator Program

Marks Scored : 2

```
public class EMI_Calculator {

    // Method to calculate EMI
    public double calculateEMI(double principal, double annualRateOfInterest, int loanTenure) {
        if (principal < 0) {
            throw new IllegalArgumentException("Principal amount cannot be negative");
        }
        if (annualRateOfInterest < 0) {
            throw new IllegalArgumentException("Interest rate cannot be negative");
        }
        if (loanTenure <= 0) {
            throw new ArithmeticException("Loan tenure cannot be zero or negative");
        }

        // Monthly rate of interest
        double rateOfInterest = annualRateOfInterest / 12 / 100;
        int numberOfInstallments = loanTenure * 12; // Total number of installments (months)

        // EMI formula
        double emi = (principal * rateOfInterest * Math.pow(1 + rateOfInterest, numberOfInstallments)) /
            (Math.pow(1 + rateOfInterest, numberOfInstallments) - 1);
        return emi;
    }
}
```

2. Print the words of length of at least 8 characters with their count, in the order of max occurrences

Marks Scored : 4

```
import java.util.*;
import java.util.stream.Collectors;

public class WordCounter {

    public static Map getWordsWithMinLength(String input, int minLength) {
        if (input == null || input.isEmpty()) {
            return Collections.emptyMap();
        }

        String[] words = input.split("\\W+");
        Map wordCount = new HashMap<>();

        for (String word : words) {
            if (word.length() >= minLength) {
                wordCount.put(word, wordCount.getOrDefault(word, 0) + 1);
            }
        }
    }
}
```

```
}

return wordCount.entrySet()
    .stream()
    .sorted((a, b) -> b.getValue().equals(a.getValue())
        ? a.getKey().compareTo(b.getKey())
        : b.getValue() - a.getValue())
    .collect(Collectors.toMap(
        Map.Entry::getKey,
        Map.Entry::getValue,
        (e1, e2) -> e1,
        LinkedHashMap::new
    ));
}
```

3. Sample Implementation of Design Pattern Prototype

Marks Scored : 6

```
// PrototypeDemo.java
class Shape implements Cloneable {
    private String type;
    private int[] dimensions;

    public Shape(String type, int[] dimensions) {
        this.type = type;
        this.dimensions = dimensions;
    }

    public String getType() {
        return type;
    }

    public int[] getDimensions() {
        return dimensions;
    }

    @Override
    protected Shape clone() {
        try {
            Shape clone = (Shape) super.clone();
            clone.dimensions = this.dimensions.clone();
            return clone;
        } catch (CloneNotSupportedException e) {
            return null;
        }
    }
}
```

```
public class PrototypeDemo {  
    public static void main(String[] args) {  
        Shape original = new Shape("Rectangle", new int[]{10, 5});  
        Shape cloned = original.clone();  
        System.out.println("Original Shape: " + original.getType() + " with dimensions " + java.util.Arrays.toString(original.getDimensions()));  
        System.out.println("Cloned Shape: " + cloned.getType() + " with dimensions " + java.util.Arrays.toString(cloned.getDimensions()));  
    }  
}
```

Overall Score : 12/12 (Promoted)

Interview

Interviewed on : 26-Nov-2024 01:30 PM

Interviewd by : Srinivas Gadepalli

Interview Summary

C	2.67
Average interview rating	2.67

Question wise rating:

C	
Tell Me About yourself	3
what is the Necessity of Job	2
Abstraction	4
Career Plan	2
Data Structures	2
Inheritance	3
Average rating	2.67

Interviewer Remarks:

No Remarks

Interviewer's Feedback:

Interviewer	Decision	Notes
Srinivas Gadepalli	Hire	candidate has good communication skills.