**CSE1007: Java Programming**

**VL2020210504182**

**SLOT: L53+L54**

**Faculty: JAISANKAR N**

**LAB FAT**

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**Question-6**

a) Create a package named alphabets. It should have two classes namely Vowels and Consonants. Both the class should have method to perform alphabet_type. Depends on the input received from the user, pass argument to the method alphabet_type of Vowels to print only vowels from the given string, otherwise pass argument to the Consonants. Write a java application program which make use of the above method.

**Source Code:**

```
package alphabets;


public class Consonents {
	public static void print(String s) {
		for(int i=0;i<s.length();i++) {
			if(s.charAt(i)	!='a'	&&	s.charAt(i)!='e'	&&
s.charAt(i) !='i' && s.charAt(i) !='o' && s.charAt(i) !='u')
			{
				System.out.println(s.charAt(i));
			}
		}
	}
}
```

---

```
package alphabets;
```

```
public class Consonents {
	public static void print(String s) {
		for(int i=0;i<s.length();i++) {
			if(s.charAt(i)   !='a'   ||   s.charAt(i)!='e'   ||
s.charAt(i) !='i' || s.charAt(i) !='o' || s.charAt(i) !='u')
			{
				System.out.println(s.charAt(i));
			}
		}
	}
}
```

---

```
package main;
import java.util.*;
import alphabets.*;

public class Test {
	public static void main(String args[]) {
		System.out.println("Enter String");
		Scanner sc=new Scanner(System.in);
		String s=sc.nextLine();
		System.out.println("Enter  0  for  printing  vowels,  1  for
printing Consonents");
		int alpha_type=sc.nextInt();
		if(alpha_type==1) Vowels.print(s);
		else Consonents.print(s);
	}
}
```

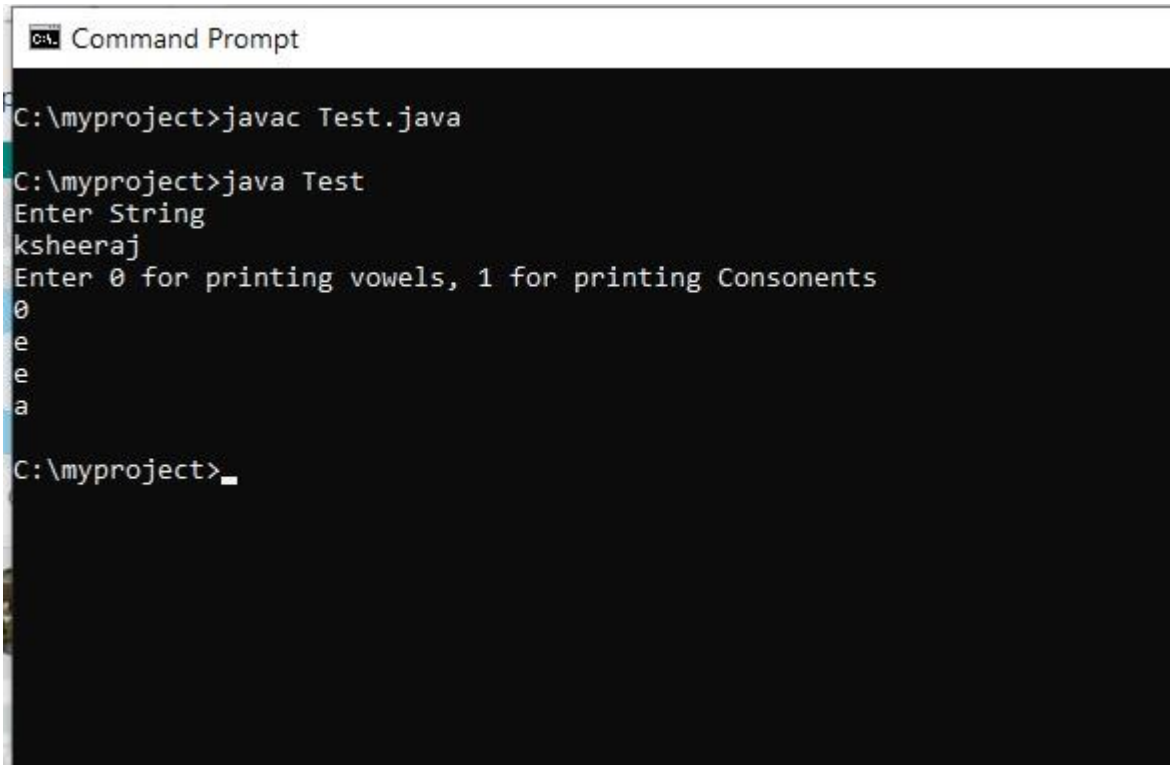
**Alternative Code: not using static method**

```
package alphabets;

public class Vowels {
	public void print(String s) {
		for(int i=0;i<s.length();i++) {
```

```
                if(s.charAt(i)   !='a'   ||   s.charAt(i)!='e'   ||
s.charAt(i) !='i' || s.charAt(i) !='o' || s.charAt(i) !='u')
                {
                      System.out.println(s.charAt(i));
                }
           }
     }
}


package alphabets;

public class Consonents {
     public void print(String s) {
           for(int i=0;i<s.length();i++) {
                if(s.charAt(i)   !='a'   &&   s.charAt(i)!='e'   &&
s.charAt(i) !='i' && s.charAt(i) !='o' && s.charAt(i) !='u')
                {
                      System.out.println(s.charAt(i));
                }
           }
     }
}

import java.util.*;
import alphabets.*;
public class Test {
     public static void main(String args[]) {
alphabets.Consonents ons= new alphabets.Consonents();
alphabets.Vowels bns= new alphabets.Vowels();
           Scanner sc=new Scanner(System.in);
           String s=sc.nextLine();
           int alpha_type=sc.nextInt();
           if(alpha_type==1)
                bns.print(s);
           else
                ons.print(s);
     }
}
```

**Output Screenshot (Test cases):**

```
C:\vit\kandra ksheeraj>javac -d . Consonents.java

C:\vit\kandra ksheeraj>javac -d . Vowels.java
```




```
C:\myproject>java Test
Enter String
ksheeraj
Enter 0 for printing vowels, 1 for printing Consonents
1
k
s
h
r
j

C:\myproject>
```

b) Write a Java program using JavaFX in which user enters a number and clicks a button to check whether given number is palindrome or not. Display the result in another text field.

**Source Code:**

```
package sample;
import javafx.application.Application;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.Label;
import javafx.scene.control.TextField;
import javafx.scene.layout.GridPane;
import javafx.stage.Stage;
public class Main extends Application {

    public static String Palindrome(String n){
        int r=0 ;
        int rem, num;
        num=Integer.parseInt(n);
        int temp = num;

        for( ;num != 0; num /= 10 )
        {
            rem = num % 10;
            r = r * 10 + rem;
        }

        if (temp == r)
        {
           return "Yes Palindrome";
        }
```

```
        else
        {
            return "No, No a Palindrome";
        }
    }

    public static void main(String[] args) {
        launch(args);
    }

    @Override
    public void start(Stage primaryStage) {
        // TODO Auto-generated method stub
        Label n=new Label("Enter the Number: ");

        TextField tf1=new TextField();
        TextField tf2=new TextField();
        Button b = new Button("Submit");
        GridPane root = new GridPane();
        b.setOnAction(e->{
            Label msg=new Label(Palindrome(tf1.getText()));
            root.addRow(2,msg,tf2);
        });

        root.addRow(0, n, tf1);
        root.addRow(1, b);
        Scene scene=new Scene(root,300,200);
        primaryStage.setScene(scene);
        primaryStage.setTitle("Text Field Example");
        primaryStage.show();
    }
}
```

**Output Screenshot (Test Cases):**