1. Java program to reverse a given String without using built-in reverse method:

public class Main {

public static void main(String[] args) {

String str = "hello";

String reversed = "";

for (int i = str.length() - 1; i >= 0; i--) {

reversed += str.charAt(i);

}

System.out.println("Reversed string: " + reversed);

}

}

1. Program that reverses the digits of a given integer using a while loop:

public class Main {

public static void main(String[] args) {

int num = 12345;

int reversed = 0;

while (num != 0) {

int digit = num % 10;

reversed = reversed \* 10 + digit;

num /= 10;

}

System.out.println("Reversed number: " + reversed);

}

}

1. Temperature conversion tool between Celsius and Fahrenheit:

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter temperature in Celsius: ");

double celsius = scanner.nextDouble();

double fahrenheit = (celsius \* 9/5) + 32;

System.out.println(celsius + " Celsius = " + fahrenheit + " Fahrenheit");

System.out.print("Enter temperature in Fahrenheit: ");

fahrenheit = scanner.nextDouble();

celsius = (fahrenheit - 32) \* 5/9;

System.out.println(fahrenheit + " Fahrenheit = " + celsius + " Celsius");

}

}

1. Program to remove duplicate characters from a String while maintaining the original order:

public class Main {

public static void main(String[] args) {

String str = "hello";

StringBuilder result = new StringBuilder();

for (int i = 0; i < str.length(); i++) {

if (result.indexOf(String.valueOf(str.charAt(i))) == -1) {

result.append(str.charAt(i));

}

}

System.out.println("String without duplicates: " + result.toString());

}

}

1. Program using a do-while loop to print "Welcome!" 5 times:

public class Main {

public static void main(String[] args) {

int i = 1;

do {

System.out.println("Welcome!");

i++;

} while (i <= 5);

}

}