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Batch code: ANP-C6008

Lab Assignment 2

1) Write a Java program to check if a given number is positive, negative, or zero.

Code:

```
//1) Write a Java program to check if a given number is
positive, negative, or zero.

package Program;

import java.util.Scanner;

public class Program1 {
     public static void main(String s[]) {
          Scanner Sc = new Scanner(System.in); // scanner
sobject for taking input
          System.out.println("Enter the number : \n"); //
integer input
          int num = Sc.nextInt(); // input
          System.out.println("Number : " + num); // integer
input
          // control statements for finding whether the number
is positive, negative or
          // zero
          if (num > 0) { // if statement
               System.out.println("The number is positive.");

          }
          if (num < 0) { // if statement
               System.out.println("The number is negative.");

          }
          if (num == 0) { // if statement
               System.out.println("The number is zero. It's
neither positive nor negative.");
          }
     }
}
```

Output:

```
Enter the number :

-3
Number : -3
The number is negative.
```

2) Develop a Java program to calculate the grade of a student based on their percentage of marks. Use the following grading scale:

90-100 = A+

75-90 = A

60-74 = B

40 - 60 = C

below 40 = Fail

Code:

```
//2) Develop a Java program to calculate the grade of a
student based on their percentage of marks. Use the following
grading scale:
//90-100 = A+
//75-90 = A
//60-74 = B
//40 - 60 = C
//below 40 = Fail

package Program;

import java.util.Scanner;

public class Program2 {

	public static void main(String[] args) {
		Scanner Sc = new Scanner(System.in); // scanner
object for taking input
		System.out.println("Enter the percentage of the
student : \n"); // integer input
		int percentage = Sc.nextInt(); // input of
percentage
		System.out.println("percentage : " + percentage); //
integer input
```

```
//Contol Statement for deciding the grade of students on their
percentage.
          if (percentage > 90) {
               System.out.println("Greade is A+.");
          }
          if ((percentage >= 75) && (percentage <= 90)) {
               System.out.println("Greade is A.");
          }
          if ((percentage <= 74) && (percentage >= 60)) {
               System.out.println("Greade is B.");
          }
          if ((percentage >= 40) && (percentage < 60)) {
               System.out.println("Greade is C.");
          }
          if (percentage < 40) {
               System.out.println("You failed.");
          }

     }

}
```

Output:

```
78
percentage : 78
Greade is A.
```

3) Create a Java program to check if a given character is a vowel or a consonant.

Code:

```
//Create a Java program to check if a given character is a
vowel or a consonant.

package Program;

import java.util.Scanner;

public class Program3 {
     //char[] alp = { 'a', 'e', 'i', 'o', 'u' };

     public static void main(String[] args) {
          Scanner Sc = new Scanner(System.in); // scanner
object for taking input
```

```
            System.out.println("Enter the alphabet"); // Asking
to enter a character from the user
            char alpha = Sc.next().charAt(0); // input of
character
            System.out.println("Alphabet : " + alpha); //
showing the entered character to the user.
            //using "switch" statement to find whether the
letter is vowel or consonant.
            switch (alpha) {
            case 'a':
                  System.out.println("The entered character is a
vowel.");
                  break;
            case 'e':
                  System.out.println("The entered character is a
vowel.");
                  break;
            case 'i':
                  System.out.println("The entered character is a
vowel.");
                  break;
            case 'o':
                  System.out.println("The entered character is a
vowel.");
                  break;
            case 'u':
                  System.out.println("The entered character is a
vowel.");
                  break;
            default:
                  System.out.println("The entered character is a
consonent.");
                  break;

            }
      }

      private static void Switch(String alpha) {
            // TODO Auto-generated method stub

      }

}
```

Output:

```
Enter the alphabet
w
Alphabet : w
The entered character is a consonent.
```