

Experiment no – 03(a)

Aim: Write a program in C to check entered character vowel or consonant.

Algorithm:

- Start
- i. Declare character type variable ch
 - iii. Read ch from User
 - iv. // Checking both lower and upper case vowels.
 - v. IF (ch == 'a' || ch == 'A' ||
 - i. ch == 'e' || ch == 'E' || ii.
 - ch == 'i' || ch == 'I' ||
 - iii. ch == 'o' || ch == 'O' ||
 - iv. ch == 'u' || ch == 'U')
 - vi. Print "Vowel"
 - vii. ELSE
 - viii. Print "Consonant"
 - ix. Stop

Code:

```
#include <stdio.h>

int main() {    char
c;

    printf("03-sarabjeetsingh.");

    int lowercase_vowel, uppercase_vowel;

    printf("Enter an alphabet: ");

    scanf("%c", &c);

    // evaluates to 1 if variable c is a lowercase vowel
    lowercase_vowel = (c == 'a' || c == 'e' || c == 'i' || c == 'o' || c == 'u');

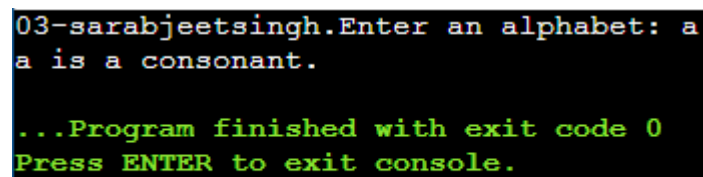
    // evaluates to 1 if variable c is a uppercase vowel
    uppercase_vowel = (c == 'A' || c == 'E' || c == 'I' || c == 'O' || c == 'U');
```

```

    // evaluates to 1 (true) if c is a vowel
    if (lowercase_vowel || uppercase_vowel)
        printf("%c is a vowel.", c);    else
        printf("%c is a consonant.", c);
    return 0;
}

```

Output:



```

03-sarabjeetsingh.Enter an alphabet: a
a is a consonant.

...Program finished with exit code 0
Press ENTER to exit console.

```

Experiment no – 03(b)

Aim: Write a program to C program to print day name of week using switch-case.

Algorithm:

- i. Input day number from user. Store it in some variable say *no*.
- ii. Switch the value of *week* i.e. use switch(*no*) and match with cases. iii.
- There can be 7 possible values(choices) of *week* i.e. 1 to 7. Therefore write 7 case inside switch. In addition, add default case as an else block.
- iv. For case 1: print “MONDAY”, for case 2: print “TUESDAY” and so on. Print “SUNDAY” for case 7:.
- v. If any case does not matches then, for default: case print “Invalid week number”.

Code:

```
#include <stdio.h>
```

```
int main()
```

```
{ printf("03-sarabjeetsingh.");
```

```
int week;
```

```

    /* Input week number from user */
    printf("Enter week number(1-7): ");
    scanf("%d", &week);

    switch(week)
    {
        case 1:
            printf("Monday");
            break;
        case 2:
            printf("Tuesday");
            break;
        case 3:
            printf("Wednesday");
            break;
        case 4:
            printf("Thursday");
            break;
        case 5:
            printf("Friday");
            break;
        case 6:
            printf("Saturday");
            break;
        case 7:
            printf("Sunday");
            break;
        default:
            printf("Invalid input! Please enter week number between 1-7.");
    }

    return 0;
}

```

Output:

```
03-Sarabjeetsingh.Enter week number(1-7): 5
Friday

...Program finished with exit code 0
Press ENTER to exit console.
```

Experiment no – 03(c)

Aim: Write a program to read three values from keyboard and print out the largest of them without using if statement.

Algorithm:

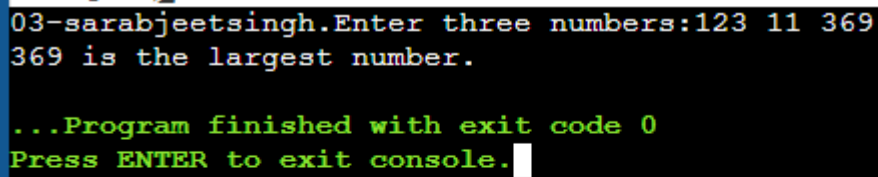
- i. Ask the user to enter three integer values.
- ii. Read the three integer values in num1, num2, and num3 (integer variables).
- iii. Check if num1 is greater than num2.
- iv. If true, then check if num1 is greater than num3.
 - a. If true, then print 'num1' as the greatest number.
 - b. If false, then print 'num3' as the greatest number.
- v. If false, then check if num2 is greater than num3.
 - a. If true, then print 'num2' as the greatest number.
 - b. If false, then print 'num3' as the greatest number.

Code:

```
#include<stdio.h> int
main()
{ printf("03-sarabjeetsingh."); int N1,
N2, N3, Irg; printf("Enter three
numbers:"); scanf("%d %d %d", &N1,
&N2, &N3);
```

```
Irg = N1 > N2 ? (N1 > N3 ? N1 : N3) : (N2 > N3 ? N2 : N3);  
printf("%d is the largest number.",Irg); return 0;  
}
```

Output:

A screenshot of a terminal window with a black background and green text. The text shows the execution of a program where three numbers (123, 11, 369) are entered, and the program correctly identifies 369 as the largest number. The terminal also shows the program finishing with exit code 0 and a prompt to press ENTER to exit the console.

```
03-sarabjeetsingh.Enter three numbers:123 11 369  
369 is the largest number.  
  
...Program finished with exit code 0  
Press ENTER to exit console.
```