Experiment no – 03(a)

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

Algorithm:

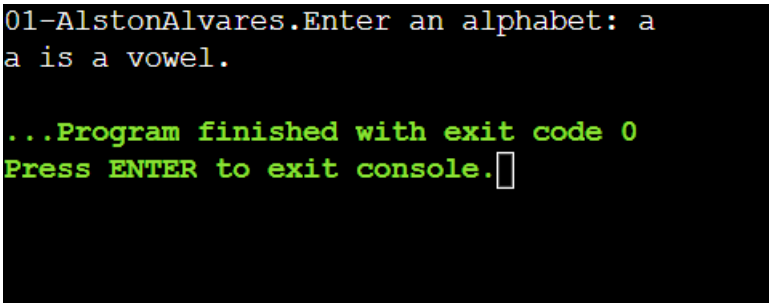
i. Start
ii. Declare character type variable ch
iii. Read ch from User
iv. // Checking both lower and upper case vowels.
v. IF (ch == 'a' || ch == 'A' ||
i. ch == 'e' || ch == 'E' ||
ii. ch == 'i' || ch == 'I' ||
iii. ch == 'o' || ch == 'O' ||
iv. ch == 'u' || ch == 'U')
vi. Print "Vowel"
vii. ELSE
viii.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

Code:

```
#include <stdio.h>
int main() {
   char c;
   printf("01-AlstonAlvares.");
   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:



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:.

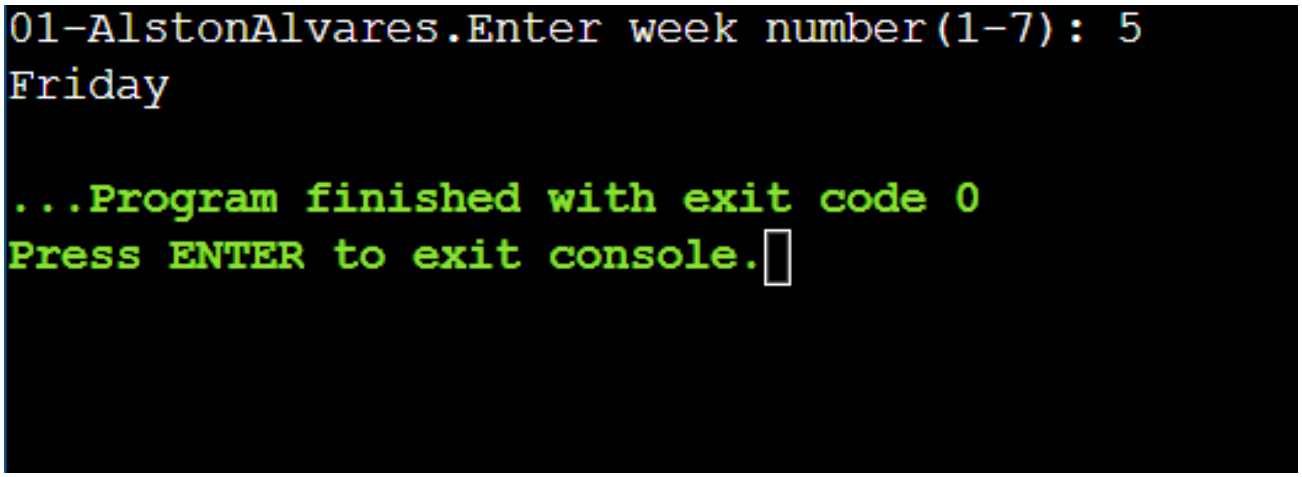
v. If any case does not matches then, for default: case print “Invalid week number”.

Code:

```
#include <stdio.h>


int main()
{ printf("01-AlstonAlvares.");
  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:


01-AlstonAlvares.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("01-AlstonAlvares.");
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: