**1. Write a program which takes a user input character value and prints if its vowel or consonant or any invalid alphabet using switch statement.**

Program:-

#include <stdio.h>

void main()

{

char ch;

printf("Enter the char: ");

scanf("%c",&ch);

switch(ch)

{

case 'a':

case 'e':

case 'i':

case 'o':

case 'u':

case 'A':

case 'E':

case 'I':

case 'O':

case 'U':

printf("The given character is a vowel");

break;

case 'b':

case 'c':

case 'd':

case 'f':

case 'g':

case 'h':

case 'j':

case 'k':

case 'l':

case 'm':

case 'n':

case 'p':

case 'q':

case 'r':

case 's':

case 't':

case 'v':

case 'w':

case 'x':

case 'y':

case 'z':

case 'B':

case 'C':

case 'D':

case 'F':

case 'G':

case 'H':

case 'J':

case 'K':

case 'L':

case 'M':

case 'N':

case 'P':

case 'Q':

case 'R':

case 'S':

case 'T':

case 'V':

case 'W':

case 'X':

case 'Y':

case 'Z':

printf("The given character is a consonant");

break;

default:

printf("The given character is not an alphabet");

}

}

**OUTPUT:-**

**![Text

Description automatically generated]()![Text

Description automatically generated]()**

**![Text

Description automatically generated]()**

**2. Write a program using the switch statement that will Read 2 numbers and an operator (+,-,\*,/) . Based on the operator, perform the corresponding operation and print the result.**

Program:-

#include <stdio.h>

void main()

{

float n1,n2;

char op,ch;

float result;

printf("Enter the first number: ");

scanf("%f",&n1);

printf("Enter the second number: ");

scanf("%f",&n2);

ch=getchar();

printf("Enter the operation( + , - , \* , / ): ");

scanf("%c",&op);

switch(op)

{

case '+':

result=n1+n2;

printf("The sum of %f and %f is %f ", n1,n2,result);

break;

case '-':

result=n1-n2;

printf("The substraction of %f from %f gives %f ", n2,n1,result);

break;

case '\*':

result=n1\*n2;

printf("The product of %f and %f is %f ", n1,n2,result);

break;

case '/':

result=n1/n2;

printf("The division of %f by %f gives %f ", n1,n2,result);

break;

default:

printf("Sorry! Wrong input");

}

}

**OUTPUT:-**

**![Text

Description automatically generated]()**

**![Text

Description automatically generated]()**

**![Text

Description automatically generated]()**

**3. Write a program using the switch statement to read a single digit no (0..9) and print the corresponding word (Zero, One .. Nine etc,)**

Program:-

#include <stdio.h>

void main()

{

int n;

printf("Enter a one digit number: ");

scanf("%d",&n);

switch(n)

{

case 0:

printf("The one digit number given is Zero");

break;

case 1:

printf("The one digit number given is One");

break;

case 2:

printf("The one digit number given is Two");

break;

case 3:

printf("The one digit number given is Three");

break;

case 4:

printf("The one digit number given is Four");

break;

case 5:

printf("The one digit number given is Five");

break;

case 6:

printf("The one digit number given is Six");

break;

case 7:

printf("The one digit number given is Seven");

break;

case 8:

printf("The one digit number given is Eight");

break;

case 9:

printf("The one digit number given is Nine");

break;

default:

printf("Sorry! The input is not a one digit number");

break;

}

}

**OUTPUT:-**

![Text

Description automatically generated]()![Text

Description automatically generated]()

**4. Write a program using the switch statement to print the number of days in a month using switch case.**

Program:-

#include <stdio.h>

void main()

{

int n;

printf("Enter the month code ( 1 to 12 ): ");

scanf("%d",&n);

switch(n)

{

case 1:

printf("The month of January has 31 days");

break;

case 2:

printf("Enter the year: ");

int year;

scanf("%d",&year);

if (year % 400 == 0)

printf("The month of February in the year %d has 29 days", year);

else if (year % 100 == 0)

printf("The month of February in the year %d has 28 days", year);

else if (year % 4 == 0)

printf("The month of February in the year %d has 29 days", year);

else

printf("The month of February in the year %d has 28 days", year);

break;

case 3:

printf("The month of March has 31 days");

break;

case 4:

printf("The month of April has 30 days");

break;

case 5:

printf("The month of May has 31 days");

break;

case 6:

printf("The month of June has 30 days");

break;

case 7:

printf("The month of July has 31 days");

break;

case 8:

printf("The month of August has 31 days");

break;

case 9:

printf("The month of September has 30 days");

break;

case 10:

printf("The month of October has 31 days");

break;

case 11:

printf("The month of November has 30 days");

break;

case 12:

printf("The month of December has 31 days");

break;

default:

printf("Sorry! Wrong input");

}

}

**OUTPUT:-**

**![Text

Description automatically generated]()![Text

Description automatically generated]()**

**![Text

Description automatically generated]()**

**5. Write a program using the if statement that will read 2 numbers and an operator (+, -, \*, /) . Based on the operator, perform the corresponding operation and print the result. Enter operator either: \* Enter two operands: 6.5 4.25 The operations output is 6.5 \* 4.25 = 27.625**

Program:-

#include <stdio.h>

int main()

{

float n1,n2;

char op,ch;

float result;

printf("Enter the first number: ");

scanf("%f",&n1);

printf("Enter the second number: ");

scanf("%f",&n2);

ch=getchar();

printf("Enter the operation( + , - , \* , / ): ");

scanf("%c",&op);

if(op=='+')

result=n1+n2;

else if(op=='-')

result=n1-n2;

else if(op=='\*')

result=n1\*n2;

else if(op=='/')

result=n1/n2;

else

{

printf("Sorry wrong character");

return 0;

}

printf("%f %c %f = %f",n1,op,n2,result);

return 0;

}

**OUTPUT:-**

![Text

Description automatically generated]()![Text

Description automatically generated]()![Text

Description automatically generated]()