Condition(if/else/switch)

1. Determine a number even or odd.

2. Multiple Common Statement.

3. Large number between the two number.

4. Determine marks.

5. Determine a number is positive or negative.

6. Vowel or Consonant using relational operator.

7. Vowel or Consonant using logical operator.

8. Large number between the three number.

9. Leap Year.

10(1).Pass or Fail.

10(2).Letter grade.

11. Capital letter or Small letter.

12(1). Local Variable

12(2). Vowel or Consonant using switch.

13. Read a digit and display it’s spelling.

14. Menu Based temperature.

15. Switch calculator.

16. Taking input from user using conditional operator.

17. Bitwiseand, or , xor .

18. Uses of goto keyword.

19. OR operator

20. Grid Traversal – গ্রিড ট্রাভার্সাল বা রোবটের ভ্রমণ

1. Determine a number even or odd.

Output:

Enter the number = 4

This is even number

#include <stdio.h>

int main()

{

int num;

printf("Enter the number = ");

scanf("%d", &num);

if (num % 2 == 0)

printf("This is even number\n");

else

printf("This is odd number\n");

}

2. Multiple Common Statement.

Output:

Good Morning

Golam Kibria

#include <stdio.h>

int main()

{

int time = 10;

if (time == 10)

{

printf("Good Morning\n");

printf("Golam Kibria\n");

}

else

{

printf("Sorry it's not morning\n");

printf("Golam Kibria you can sleep little more\n");

}

}

3. Large number between the two number.

#include <stdio.h>

int main()

{

int num1, num2;

printf("Please enter two number = ");

scanf("%d %d", &num1, &num2);

if (num1 > num2)

printf("Large number is = %d\n", num1);

else if (num2 > num1)

printf("Large number is = %d\n", num2);

else

printf("Numbers are equal\n");

}

Output:

Please enter two number = 10 5

Large number is = 10

4. Determine marks.

#include <stdio.h>

int main()

{

int num;

printf("Please enter a number = ");

scanf("%d", &num);

if (num >= 80) printf("Your grade is A+");

else if (num >= 70) printf("Your grade is A");

else if (num >= 60) printf("Your grade is A-");

else if (num < 33) printf("FAIL!!");

}

Output:

Please enter a number = 70

Your grade is A

5. Determine a number is positive or negative.

Output:

Please enter a number = 6

The number is positive

#include <stdio.h>

int main()

{

int num;

printf("Please enter a number = ");

scanf("%d", &num);

if (num > 0) printf("The number is positive\n");

else if (num < 0) printf("The number is negative\n");

else printf("The number is zero\n");

}

6. – Vowel or Consonant using relational operator.

Output:

Enter any character = x

Consonant

#include <stdio.h>

int main()

{

char ch;

printf("Enter any character = ");

scanf("%c", &ch);

if (ch == 'a') printf("Vowel");

else if (ch == 'e') printf("Vowel");

else if (ch == 'i') printf("Vowel");

else if (ch == 'o') printf("Vowel");

else if (ch == 'u') printf("Vowel");

else if (ch == 'A') printf("Vowel");

else if (ch == 'E') printf("Vowel");

else if (ch == 'I') printf("Vowel");

else if (ch == 'O') printf("Vowel");

else if (ch == 'U') printf("Vowel");

else printf("Consonant");

}

7. – Vowel or Consonant using logical operator.

#include <stdio.h>

int main()

{

char ch;

printf("Enter any character = ");

scanf("%c", &ch);

if (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u' || ch == 'A' || ch == 'E' || ch == 'I' || ch == 'O' || ch == 'U')

printf("Vowel\n");

else printf("Consonant\n");

}

Output:

Enter any character = a

Vowel

8. Large number between the three number.

#include <stdio.h>

int main()

{

int num1, num2, num3;

printf("Enter the three value = ");

scanf("%d %d %d", &num1, &num2, &num3);

if (num1 > num2 && num1 > num3)

printf("%d is the large number\n", num1);

else if (num2 > num1 && num2 > num3)

printf("%d is the large numbre\n", num2);

else if (num3 > num1 && num3 > num2)

printf("%d is the large number\n", num3);

}

Output:

Enter the three value = 12 23 31

31 is the large number

9. Leap Year.

#include <stdio.h>

int main()

{

int year;

printf("Enter a year = ");

scanf("%d", &year);

if (year % 400 == 0)

printf("Leap Year\n");

else if (year % 4 == 0 && year % 100 != 0)

printf("Leap Year");

else printf("Not a leap year\n");

}

Output:

Enter a year = 2000

Leap Year

10(1). Pass or Fail.

#include <stdio.h>

int main()

{

int marks;

printf("Please enter your marks = ");

scanf("%d", &marks);

if (marks >= 33)

printf("pass");

else

printf("Fail");

}

Output:

Please enter your marks = 78

pass

10(2). Letter grade.

#include <stdio.h>

int main()

{

int marks;

printf("Please enter your marks = ");

scanf("%d", &marks);

if (marks > 100 || marks < 0) printf("Invalid Marks\n");

else if (marks >= 80 && marks <= 100) printf("A+");

else if (marks >= 70 && marks <= 79) printf("A");

else if (marks >= 60 && marks <= 69) printf("A-");

else if (marks >= 50 && marks <= 59) printf("B");

else if (marks >= 33 && marks <= 49) printf("D");

else printf("Fail");

}

Output:

Please enter your marks = 87

A +

11. Capital letter or Small letter.

#include <stdio.h>

int main()

{

char ch;

printf("Please inter a character = ");

scanf("%c", &ch);

if (ch >= 'A' && ch <= 'Z')

printf("Capital Letter\n");

else if (ch >= 'a' && ch <= 'z')

printf("Small Letter\n");

else

printf("Not a letter\n");

}

Output:

Please inter a character = A

Capital Letter

12(1). Local Variable

#include <stdio.h>

int main()

{

int a = 10;

printf("The value of a = %d\n", a);

/\*This is into the main function so it's called local variable\*/

}

Output:

The value of a = 10

12(2). Vowel or Consonant using switch.

#include <stdio.h>

int main()

{

char ch;

printf("Enter any character = ");

scanf("%c", &ch);

switch (ch)

{

case 'a':

case 'b':

case 'e':

case 'i':

case 'u':

case 'A':

case 'E':

case 'I':

case 'O':

case 'U':

printf("Vowel\n");

break;

default:

printf("Consonant\n");

}

}

Output:

Enter any character = a

Vowel

13. Read a digit and display it’s spelling.

#include <stdio.h>

int main()

{

int digit;

printf("Enter any digit = ");

scanf("%d", &digit);

switch (digit)

{

case 0:

printf("Zero\n");

break;

case 1:

printf("One\n");

break;

case 2:

printf("Two\n");

break;

case 3:

printf("Three\n");

break;

case 4:

printf("Four\n");

break;

case 5:

printf("Five\n");

break;

case 6:

printf("Six\n");

break;

case 7:

printf("Seven\n");

break;

case 8:

printf("Eight\n");

break;

case 9:

printf("Nine\n");

break;

default:

printf("Not a valid digit\n");

}

}

Output:

Enter any digit = 3

Three

14. Menu Based temperature.

#include <stdio.h>

int main()

{

int choice;

float c, f;

printf("Temperature conversion menu:\n");

printf("1. Farenheit to Celcious.\n");

printf("2. Celcious to Farenheit.\n");

printf("Please enter your choice: ");

scanf("%d", &choice);

switch (choice)

{

case 1:

printf("Enter Farenheit tempeature = ");

scanf("%f", &f);

c = (f - 32) / 1.8;

printf("The temperature in Celcious is = %.2f\n", c);

break;

case 2:

printf("Enter Celcious temperature = ");

scanf("%f", &c);

f = (c \* 1.8) + 32;

printf("The temperature in Farenheit is = %.2f\n", f);

break;

default:

printf("Not a correct option\n");

}

}

Output:

Temperature conversion menu :

1. Farenheit to Celcious.

2. Celcious to Farenheit.

Please enter your choice : 1

Enter Farenheit tempeature = 100

The temperature in Celcious is = 37.78

15. Switch calculator.

#include <stdio.h>

int main()

{

double num1, num2;

char operator;

printf("Enter any operator(+, -, \*, /) = \n");

scanf("%ch", &operator);

printf("Please enter two number = \n");

scanf("%lf %lf", &num1, &num2);

switch (operator)

{

case '+':

printf("%.2lf + %.2lf = %.2lf\n", num1, num2, num1 + num2);

break;

case '-':

printf("%.2lf - %.2lf = %.2lf\n", num1, num2, num1 - num2);

break;

case '\*':

printf("%.2lf \* %.2lf = %.2lf\n", num1, num2, num1 \* num2);

break;

case '/':

printf("%.2lf / %.2lf = %.2lf\n", num1, num2, num1 / num2);

break;

default:

printf("Not a valid operator\n");

}

}

Output:

Enter any operator(+, -, \*, / ) =

+

Please enter two number =

12 8

12.00 + 8.00 = 20.00

16. Taking input from user using conditional operator.

Output:

Please enter two number = 12 8

Large number is = 12

#include <stdio.h>

int main()

{

int num1, num2, large;

printf("Please enter two number = ");

scanf("%d %d", &num1, &num2);

large = (num1 > num2) ? num1 : num2;

printf("Large number is = %d\n", large);

}

17. Bitwiseand, or , xor .

Output:

The result is = 0

The result is = 15

The result is = 15

#include <stdio.h>

int main()

{

int a = 10, b = 5, c;

c = a & b;

/\*a ও b এর বাইনারি গুণফল এর মান বের করে তা ডেসিমেল আকারে প্রিন্ট করবে\*/

printf("The result is = %d\n", c);

c = a | b;

printf("The result is = %d\n", c);

c = a ^ b;

printf("The result is = %d\n", c);

}

19. OR operator

18. Uses of goto keyword.

#include <stdio.h>

#include <stdio.h>

int main()

{

int n = 5;

if (n >= 1 || n <= 10) printf("YES\n");

else printf("NO\n");

}

Output:

YES

#include <stdio.h>

int main()

{

int n = 5;

if (n >= 1 || n <= 10) printf("YES\n");

else printf("NO\n");

}

Output:

YES

#include <stdio.h>

int main()

{

int n = 5;

if (n >= 1 || n <= 10) printf("YES\n");

else printf("NO\n");

}

Output:

YES

int main()

{

int i = 1;

kibria:

printf("%d\n", i);

i++;

if (i < 5)

{

goto kibria;

}

}

Output:

1

2

3

4

20. Grid Traversal – গ্রিড ট্রাভার্সাল বা রোবটের ভ্রমণ

#include <stdio.h>

int main()

{

int x, y;

char ch;

printf("Please enter the enitial position = ");

scanf("%d %d", &x, &y); //5, 5

while (1)

{

scanf("%c", &ch);

if (ch == 's') break;

else if (ch == 'u') x--; //

else if (ch == 'd') x++;

else if (ch == 'r') y++;

else if (ch == 'l') y--;

}

printf("Final position of the robot is = %d, %d\n", x, y);

}

Output:

Please enter the enitial position = 2 2

d //3 2

r //3 3

d //4 3

r //4 4

s

Final position of the robot is = 4, 4

//s-stop, u-up, d-down, r-right, l-left