Basic syntax of if-else statement in C.	**Example 1: any non 0 value is considered true**

If (**condition**){
     Statements;
}else{
     Statements;
}
 	
Condition is a Boolean expression written with only relational operators or Boolean operator or combination of both.
	```#include<stdio.h>```
	```int main()```
	```{```
	  ```if(1){```
	    ```printf("The statement is true!!\n"); }```
	  ```return 0;```
	```}```

Ex-2(if-else with relational operators and Boolean operators combination)	**Ex-3(The 'Or' operator)**	**Operators**

```#include<stdio.h>```
```int main()```
```{```
  ```int num;```
  ```printf("Enter a number:");```
  ```scanf("%d",&num);```
 	
  ```if(num>=90)```
    ```printf("Grade is A!");```
  ```else if(num>= 80 && num < 90)```
    ```printf("Grade is B!");```
  ```else if(num>=70 && num<80)```
    ```printf("Grade is C!");```
  ```else```
    ```printf("Fail!");```
  ```return 0;```
```}```
	```#include<stdio.h>```
	```int main()```
	```{```
	  ```char c;```
	  ```printf("Enter a character:");```
	  ```scanf("%c",&c);```
	
	  ```if(c=='a' || c=='A')```
	    ```printf("You pressed A!!");```
	  ```else if(c=='B' || c=='b')```
	    ```printf("You pressed B!!");```
	  ```else if(c=='c' || c=='C')```
	    ```printf("You pressed C!!");```
	  ```else```
	    ```printf("You pressed different key!\n");```
	  ```return 0;```
	```}```
		Relational operators table below

Relational operators	
Op1 > Op2	Op1 Greater than Op2
op1 >= op2	Op1 greater than or equal to op2
op1 < op2	Op1 less than op2
op1 <= op2	Op1 less than r equal to op2
op1 == op2	Op1 equal to op2
op1 != op2	Op1 not equal to op2

Boolean operators	
&&	AND
||	Or
!	Not
!=	Not equal

Lab Tasks (If and else)

1. Determine whether an integer input is odd or even.

2. Write a program that checks whether a particular year is leap year or not. To determine whether a year is leap year or not use the following rule.

    A leap year must satisfy any or both of the following conditions:
- Divisible by 400
- Divisible by 4 and not divisible by 100

3. Write a program to check and output whether a char input is digit, uppercase letter or lowercase letter. Use the following information:
- Digit: 0-9: ASCII value (48-57)
- Uppercase alphabet: A-Z: ASCII value (65-90)
- Lowercase alphabet: a-z: ASCII value (97-122)

4. Write a program that finds the maximum of the three numbers. Take numbers as input

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Syntax of switch in C	Ex-4 (switch demo)	Ex-5(two or more cases sharing one break statements)

switch (expression)
  {
    case label1 :
      body1
      break;
 	
    case label2 :
      body2
      break;
 	
    case label3 :
      body3
      break;
 	
    default :
      default-body
      break;
  }
 next-statement;
	``c
	#include<stdio.h>
	int main()
	{
	   int n;
	   printf("Enter a number between (1-3):");
	   scanf("%d",&n);
	
	   switch(n)
	   {
	     case 1:
	        printf("Pressed 1!\n");
	        break;
	     case 2:
	        printf("Pressed 2!\n");
	        break;
	     case 3:
	        printf("Pressed 3!\n");
	        break;
	     default :
	        printf("You did not press between (1-3)\n");
	
	   }
	}
	``
		``c
		#include<stdio.h>
		int main()
		{
		   char c;
		   printf("Enter a Grade letter:");
		   scanf("%c",&c);
		   switch(c)
		   {
		     case 'A':
		     case 'a':
		        printf("You got A! \n");
		        break;
		     case 'B':
		     case 'b':
		        printf("You got B! \n");
		        break;
		     case 'C':
		     case 'c':
		        printf("You got C! \n");
		        break;
		     default:
		        printf("Invalid Grade! \n");
		   }
		   return 0;
		}
		``

Switch Task

1. Write a program that asks user for an arithmetic operator (+, - , * or /) and two operands (say a and b). Display result of the corresponding calculation using **switch** statement.

   *Enter the operator: ***
   Enter a: 50
   Enter b: 3
   Result: 150

Home Tasks

1. Take an integer input from user and check the following conditions:
   • If the number is divisible by both 2 and 3 : Print "Divisible by both"
   • If the number is divisible by either 2 or 3 : Print "Divisible by 2 or 3"
   • If none of the above conditions is true, print "Not divisible by 2 or 3"

2. Write a C program to input month number and print number of days in that month. You must use switch-case to solve this problem. Assume February has 28 day