C Language Tutorial
(Basic to Advanced)

Topics to be covered :
Installation + Setup
Chapter 1 - Variables, Data types + Input/Output
Chapter 2 - Instructions & Operators
Chapter 3 - Conditional Statements
Chapter 4 - Loop Control Statements
Chapter 5 - Functions & Recursion
Chapter 6 - Pointers
Chapter 7 - Arrays
Chapter 8 - Strings
Chapter 9 - Structures
Chapter 10 - File I/O
Chapter 11 - Dynamic Memory Allocation

Conditional Statements
(Chapter 3)

1. **If-else**

```c
#include<stdio.h>

int main() {
   int age = 19;
   if(age >= 18) {
       printf("you are an adult");
   }
   else {
       printf("you are not an adult");
   }
   return 0;
}
```

> check if a number is odd or even

```c
#include<stdio.h>

int main() {
   int number;
```

```
    scanf("%d", &number);

    if(number % 2 == 0) {
        printf("even");
    }
    else {
        printf("odd");
    }
    return 0;
}
```

> Use of else if

```
#include<stdio.h>

int main() {
    int age;
    printf("Enter age : ");
    scanf("%d", &age);

    if(age < 12) {
        printf("child");
    }
    else if(age < 18) {
        printf("teenager");
    }
    else {
        printf("adult");
    }
    return 0;
}
```

2. Ternary Operator

```
#include<stdio.h>

int main() {
    int age;
    printf("Enter age : ");
    scanf("%d", &age);

    age > 18 ? printf("adult \n") : printf("not adult \n");

    int number = 7;
```

```
   int luckyNumber = 7;

   number == luckyNumber ? printf("you are lucky \n") : printf("you are not
lucky \n");

   return 0;
}
```

3. **Switch (integer)**

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

int main() {
   int day = 5;
   switch(day) {
       case 1 : printf("monday \n");
                break;
       case 2 : printf("tuesday \n");
                break;
       case 3 : printf("wednesday \n");
                break;
       case 4 : printf("thursday \n");
                break;
       case 5 : printf("friday \n");
                break;
       case 6 : printf("saturday \n");
                break;
       case 7 : printf("sunday \n");
                break;
   }
   return 0;
}
```

4. **Switch (character)**

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

int main() {
   char day = 'f';
   switch(day) {
       case 'm' : printf("monday \n");
                break;
```

```
        case 't' : printf("tuesday \n");
                   break;
        case 'w' : printf("wednesday \n");
                   break;
        case 'T' : printf("thursday \n");
                   break;
        case 'f' : printf("friday \n");
                   break;
        case 's' : printf("saturday \n");
                   break;
        case 'S' : printf("sunday \n");
                   break;
    }
    return 0;
}
```