

/*

1.Function are used to convert a large C program into smaller pieces.

2.A function can be called multiple times to provide reusability and modularity to the

C program.

3.Also called procedure or subroutine.

Syntax:

```
return_type function_name(data_type parameter 1){
```

```
//Code to be executed
```

```
}
```

Advantages of a function:

1.We can avoid rewriting same logic through functions.

2.We can divide work among programmers through functions.

3.We can easily debug a program using functions.

Declaration, Definition and Call:

1.A function is declared to tell a compiler about its existence.

2.A function is defined to get some task done.

3.A function is called in order to be used.

Types of functions:

1.Library functions:

Functions included in C header files.

2. User defined functions:

Functions created by C programmer to reduce complexity of a program.

Function code examples:

1. Without argument and with return type:

```
#include <stdio.h>

void myname(){

printf("Aditya Yadav");

}

int main()

{

printf("My name is: ");

myname();

return 0;

}
```

2. With argument and with return value:

```
#include <stdio.h>

int sum(int a,int b){

return a+b;

}
```

```
int main()
{
int a,b,c;

a=9;

b=87;

c=sum(a,b);

printf("The sum is %d",c);

return 0;

}
```

3.With argument and with return value:

```
#include <stdio.h>

int takenumber(){

int i;

printf("Enter a number:");

scanf("%d",&i);

printf("The number is %d\n",i);

return i;

}

int main()

{
```

```
int c;  
  
c=takenumber();  
  
return 0;  
  
}
```

4. With argument and without return value:

```
#include <stdio.h>  
  
void printstar(int n){  
  
for(int i=0;i<n;i++){  
  
printf("%c",'*');  
  
}  
  
}
```

```
int main()  
  
{  
  
printstar(7);  
  
return 0;  
  
}
```

```
*/
```

```
#include <stdio.h>  
  
int sum(int a, int b)  
  
{
```

```
return a + b;

}

int main()

{

int a, b, c;

a = 9;

b = 87;

c = sum(a, b);

printf("The sum is %d", c);

return 0;

}
```