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Function in C Program

There are two type of function in C Program.

- Library function
- User defined function

Library function:

Library function is grouped category-wise and stored in different files known as header file. If we want to access the function then we access the particular header file using preprocessor directive (`#include<header file>`)

Example: `printf(); , scanf(); , getch(); , pow();`

User defined function:

User defined functions are created by user and use according to the following steps.

- Definition of the function
- Calling of the function
- Prototype declaration of function

Definition of the function:

```
return type function_name (data type arg1, data type arg2, ....)
{
    Body of function;
}
```

Example:

```
float simpleint ( int p, float r, int t)
{
    float si;
    si=(p*r*t)/100.0;
    return(si);
}
```

Calling of the function:

```
function_name ( arg1, arg2, ....);
```

Example:

```
simpleint(p,r,t);
```

Prototype declaration of function:

```
return type function_name (data type arg1, data type arg2, ....);
```

or

```
return type function_name (data type , data type , ....);
```

Example:

```
float simpleint(int p, float r, int t);
```

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Complete program:

```
#include<stdio.h>
#include<conio.h>
float simpleint(int p, float r, int t);           // Prototype Declaration
void main()
{
    int p,t;
    float si, r;
    clrscr();
    printf("\n Enter Principal Rate and Time ");
    scanf("%d%f%d",&p,&r,&t);
    si=simpleint(p,r,t);                         // Calling of function
    printf("\n Simple Interest %f",si);
    getch();
}
float simpleint(int p, float r, int t)           // Definition of function
{
    float si;
    si=(p*r*t)/100.0;
    return(si);
}
```