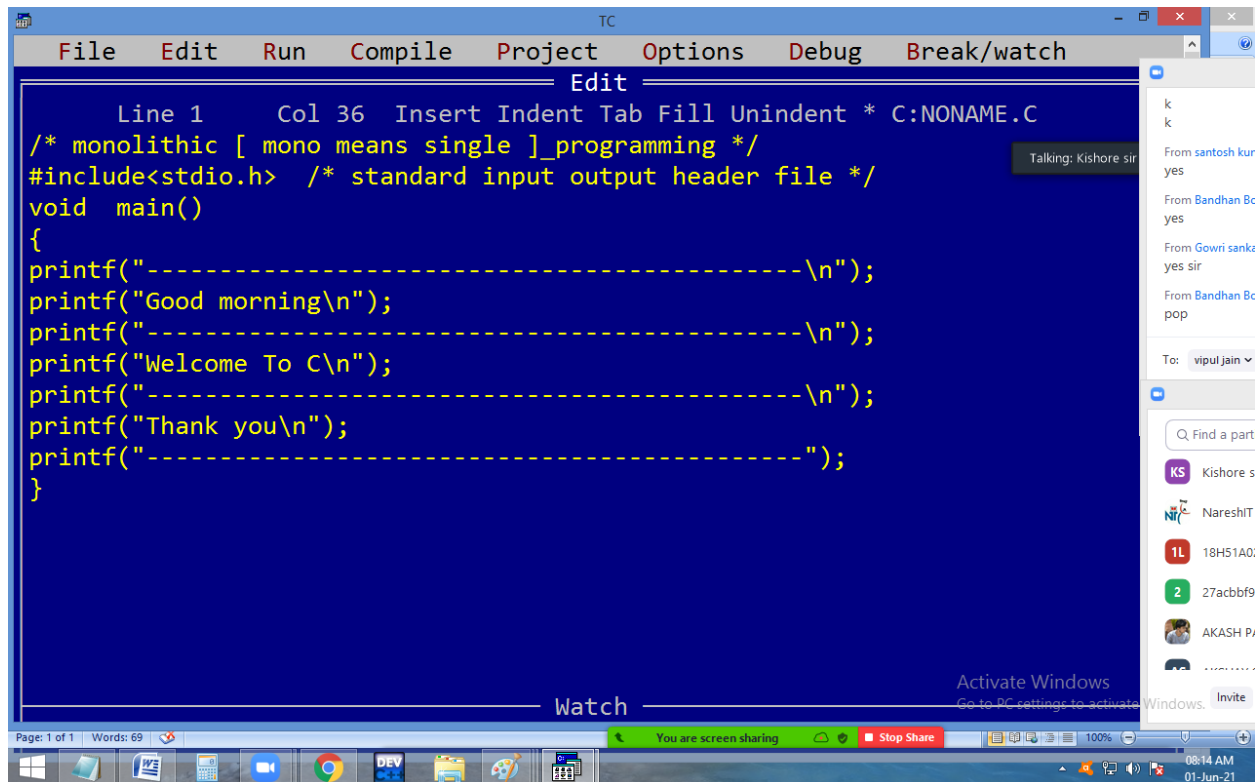C is a procedure oriented programming [POP] language

Every programming language having a particular structure, which is called programming paradigm.

What is called monolithic programming ?

Once upon a time all the programming languages creating the programs using single program, which is called monolithic programming. In this we can't reuse the program again and again. Due to this program size increased and giving more complexity.

Example:

To avoid this problem they have introduced procedure oriented approach. In this a single program is divided into several small sub programs or sub routines or procedures or functions. It provides the advantages like
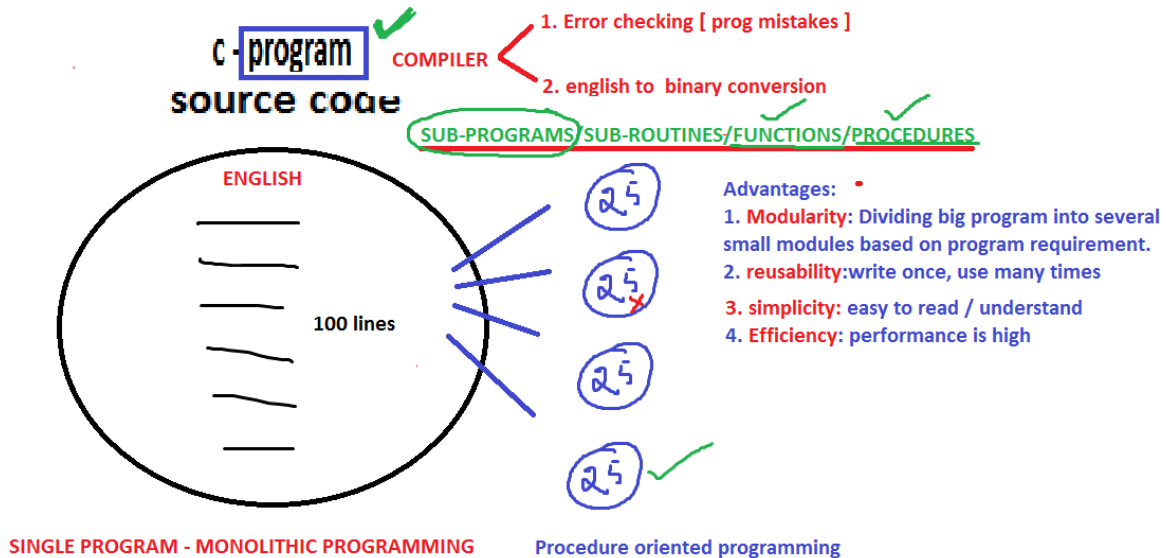
1. **Modularity**: Dividing big program into several small modules based on project requirement.
2. **Reusability**: write once, use many times.
3. **Simplicity**: Easy to read and understand the instructions.

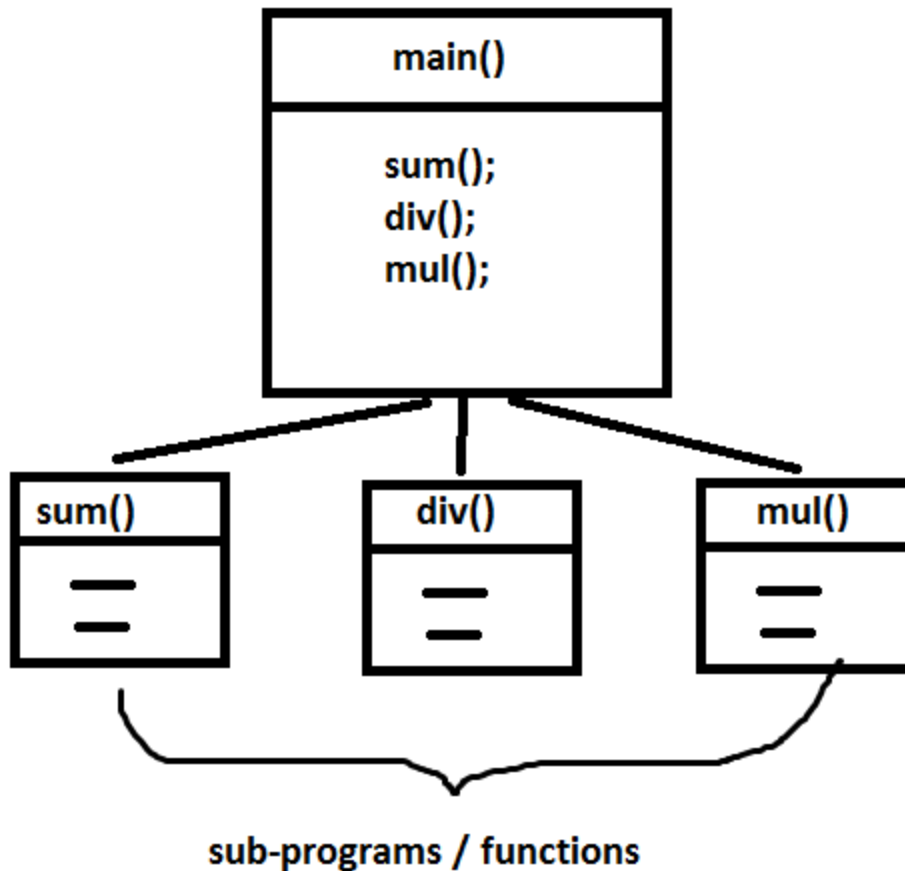# 4. **Efficiency**: performance of program improved.

```
                                 Edit
       Line 1      Col 45    Insert Indent Tab Fill Unindent * C:NONAME.C
/* procedure oriented programming [ POP ] */_
#include<stdio.h>
void  line()
{
printf("-----------------------------------------\n");
}


void  main()
{
line();
printf("Good morning\n");
line();
printf("Welcome To C\n");
line();
printf("Thank you\n");
line();
}
```

Watch

C - program
source code

✓ COMPILER

1. Error checking [prog mistakes]

2. english to binary conversion

SUB-PROGRAMS/SUB-ROUTINES/FUNCTIONS/PROCEDURES

ENGLISH

100 lines

Advantages: •
1. **Modularity:** Dividing big program into several small modules based on program requirement.
2. **reusability:** write once, use many times
3. **simplicity:** easy to read / understand
4. **Efficiency:** performance is high

SINGLE PROGRAM - MONOLITHIC PROGRAMMING   **Procedure oriented programming**

function oriented programming structure


```
                    main()
              _____
                   sum();
                   div();
                   mul();
```

sum()   div()   mul()

sub-programs / functions

C follows POP

C++ and Python follows POP & OOP. Hence they are called multi-paradigm programming languages.

.Net, Java follows OOPs