#include <stdio.h>

**Auto** Int qwr = 20; // Global variable declaration and definition. Initialization

**static** int pqr; // Static global variable declaration. Data memory 0x1000

**Const** **auto** int Gaurav; //declare and define

**Volatile auto** int Uday;

**Extern** Int get\_function(void);

#define QWR P1^1

Void test\_function\_1(void); //Declaration of test function 1

Void test\_function\_2(void); //Declaration of test function 2

Main()

{

qwr = 30; //redefine/modify the value

Gaurav = 10; //redefine/modify the value It will give compilation error.

Uday = 15; //redefined and modify is allowed.

**Auto** Int xyz; //Local variable declaration

Static int pqr; //Static local variable. Data memory 0x1002

Test\_function\_1(); //Function calling

Test\_function\_2(); //Function calling

Xyz++; //Post increament

Qwr++; //20 Post increament

//QWR = 21

}

Void test\_function\_1(void); //Definition of test function 1

{

**Static** int ghjlkjk;

**Auto Int** wer = 0;

ghjlkjk++; // 1,2 ,3 ,4

wer++;

}

Void test\_function\_2(void); //Definition of test function 2

{

**Static** int ghjlkjk;

Ghjlkjk++;

}

Void get\_function(int Gaurav, int pallavi)

{

Qwr = Gaurav + pallavi;

QWR = P1.1;

Return Qwr;

}

Abc = get\_function(5,7); //calling of extern function abc = 12

int I =10;

extern int xyz;

main()

{

extern int i; //declaration of i. Search definition in another file

{

int i=20;

{

const volatile unsigned i=30;

printf("%d",i);//30

}

printf("%d",i);//20

}

printf("%d",i);//10

}

Data Qualifier:

1. **Const** : do not to change the value. It will **not allow to change address** of variable declared as cost. Can read only.

**Example** : Const int Gaurav;

1. **Volatile** : allow to change the value at runtime. It will **not allow to change address** of variable declared as volatile.

**Example** : Volatile int Uday; Mostly use to declare variable in which value can be change anytime like temperature sensor, speed sensor and position sensor.

**Const volatile int temp\_sensor; // it will allow to read value in software but can accept new value from sensor at runtime because of volatile**