SCOPE EXAMPLES

Example 1

```
#include <stdio.h>
int main(){
  int a=10;
  printf("a=%d\n", a);

  {
      int b=5;
      printf("b=%d\n", b);
      {
          int c=40;
          printf("c=%d\n",c);
      }
  }
  return 0;
}
```

	c = 40	b = 5	a = 10

Example 2

```
#include <stdio.h>
int main(){
  int x=10;
  printf("x=%d\n", x);

  {
      int x=5;
      printf("x=%d\n", x);
      {

          int x=40;
          printf("x=%d\n",x);
      }
      x=x+4;
      printf("x=%d\n",x);
  }
  x=x+15;
  printf("x=%d\n",x);
  return 0;
}
```

	x = 40	x = 5 + 4	x = 10 + 15

Example 3

```
#include <stdio.h>
void func1(void);
void func2(void);
void func3(void);
int main(){
  int x=20;   /* first x */
  printf("x=%d\n", x);
  func1();
  x=x+10;
  printf("x=%d\n", x);
  func2();
  x=x+40;
  printf("x=%d\n",x);
  func3();
  return 0;
}
```

x = 20	
x = 30	
x = 70	
scope of 1st x	

```
int x;   /* second x */
void func1(void){
  x=5;
  printf("In func1 x=%d\n",x);
  return;

}
void func2(void){
  int x=0;   /* third x */
  printf("In func2 x=%d\n", x);
  return;
}
void func3(void){
  printf("In func3 x=%d\n", x);
  return ;

}
```

	x = 5
	scope of 2nd x
x = 0 scope of 3rd x	
	x = 5

Example 4

```
#include <stdio.h>
void func1(void);
void func2(void);
int main(){
  int x=5;
  printf("x=%d\n", x);
  func1();
  x=x+5;
  printf("x=%d\n", x);
  func2();
  x=x+5;
  printf("x=%d\n",x);
  return 0;
}
```

x = 5	
x = 10	
x = 15	

```
int x;  /* external */
void func1(void){
  x=6;
  printf("In func1 x=%d\n",x);
}
void func2(void){
  x=x+10;
  printf("In func2 x=%d\n", x);
}
```

x = 6	
x = 16	

Example 5

File 1

```
#include <stdio.h>
void func1(void);
void func2(void);
int main(){
  extern int x;
  x=1;
  printf("x=%d\n", x);
  func1();
  x=x+6;
  printf("x=%d\n", x);
  func2();
  x=x+7;
  printf("x=%d\n",x);
  return 0;
}
```

x = 1	
x = 11	scope of x
x = 28	

File 2

```
int x;  /* external */
void func1(void){
 printf("In func1 x=%d\n",x);
 x=5;
}
void func2(void){
  x=x+10;
  printf("In func2 x=%d\n", x);
}
```

x = 1	scope of x continued
x = 21	

Example 6

File 1

```
#include <stdio.h>
void func1(void);
void func2(void);
int main(){
  extern int x;
  x=1;
  printf("x=%d\n", x);              x = 1
  func1();
  x=x+6;
  printf("x=%d\n", x);              x = 11
  func2();
  x=x+7;
  printf("x=%d\n",x);               x = 18
  return 0;
}
```

File 2

```
int x;   /* external */
void func1(void){
   x=5;
   printf("In func1 x=%d\n",x);     x = 5
}
void func2(void){
  int x=10;
  printf("In func2 x=%d\n", x);     x = 10
}
```