STRUCTURE (User Defined data type)

Syntax :
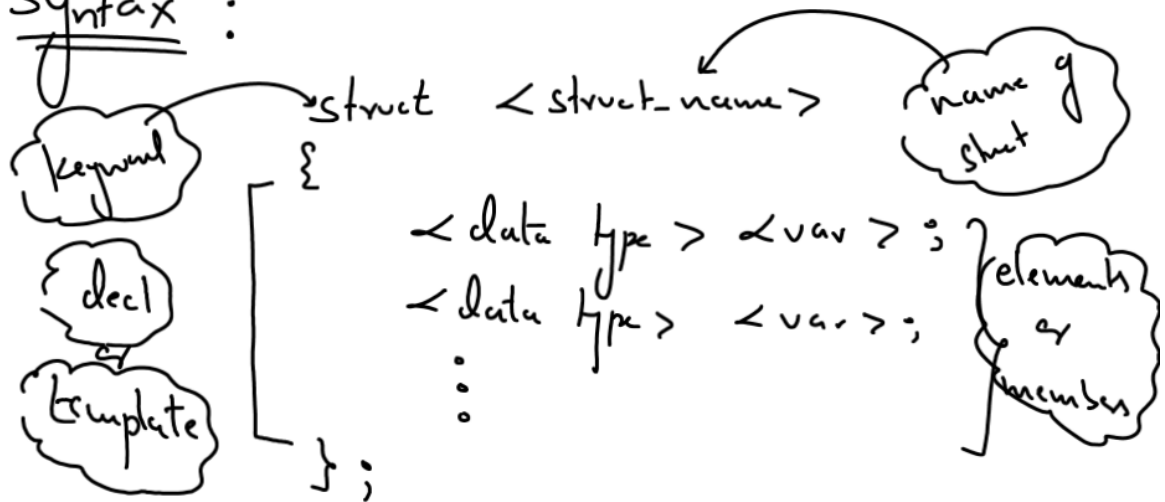
keyword

decl

template

struct < struct_name >   name of struct

{
   < data type > < var > ;
   < data type > < var > ;
     :
     :
};

elements or members

```
#include <stdio.h>
struct   Student
{
       int    roll;
       char   grade;
       float  per;
};
int main( )
   struct   Student   S;
   S.roll = 10;
```

data type

name

var

roll	grade	per
10	'A'	71.3
6000	6004 6005	6009

S

```
S.grade = 'A';

S.per = 71.3;

printf(" %d %c %f ", S.roll, S.grade,
                              S.per);

return 0;
}
```
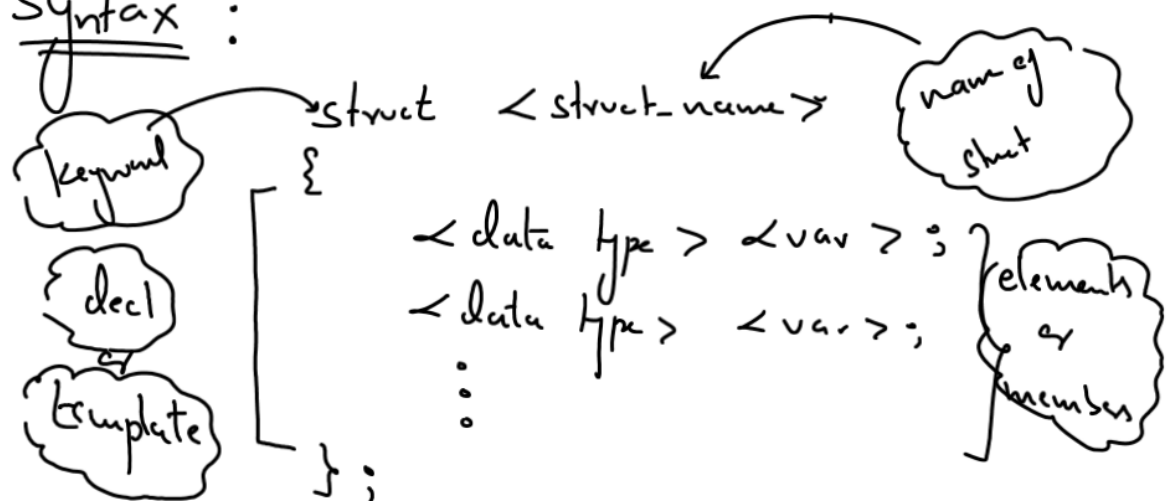
```c
#include <stdio.h>
struct Student
{
    int roll;
    char grade;
    float per;
};
int main()
{
    struct Student S;
    S.roll=10;
    S.grade='A';
    S.per=71.3;
    printf("Roll=%d,Grade=%c,Per=%f",S.roll,S.grade,S.per);
    return 0;
}
```

Syntax :

struct < struct_name >   name of struct

keyword

decl

template

{
    < data type > < var > ;
    < data type > < var > ;
        .
        .
        .
};

elements
or
members

①

```
struct Student
{
    int roll=10;
    char grade='A';
    float per=71.3;
};
// ERROR
```

②

```
struct Student
{
    int roll;
    char grade;
    float per;
}
// ERROR
```

Missing Semi-Colon

```
struct Student
{
    int roll;
    char grade;
    float per;
};
int main()
{
    Student S;  // Error
    .....
}
```

missing struct keyword!

```c
#include <stdio.h>
struct Student
{
    int roll;
    char grade;
    float per;
};
int main()
{
    struct Student S;
    printf("Enter roll,grade and per:");
    scanf("%d %c %f",&S.roll,&S.grade,&S.per);

    printf("Roll=%d,Grade=%c,Per=%f",S.roll,S.grade,S.per);
    return 0;
}
```