

# struct





"A data structure is a group of data elements grouped together under one name. These data elements, known as members, can have different types and different lengths."



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- > Why?
  - > example:
  - $\triangleright$  float positionX = 10, positionY = 15;
  - Every coordinate needs two separate variables



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Example Declaration for coordinates:

```
struct Point2f
{
    float x;
    float y;
};
```





Example Declaration for coordinates:

```
struct Point2f
  float x;
  float y;
};
> the dot or member select operator is used to access the
  members
Point2f p;
p.x = 10;
p.y = 58;
```



```
Point2f p1{}; // default initialization to 0,0
Point2f p2{200,100}; // brace init (C++11)
p1.x = 10;
p1.y = 20;
p1 = p2; -> member wise copy
```





#### Other Example:

```
struct Rectf
{
   float left, bottom, width, height;
};
```

