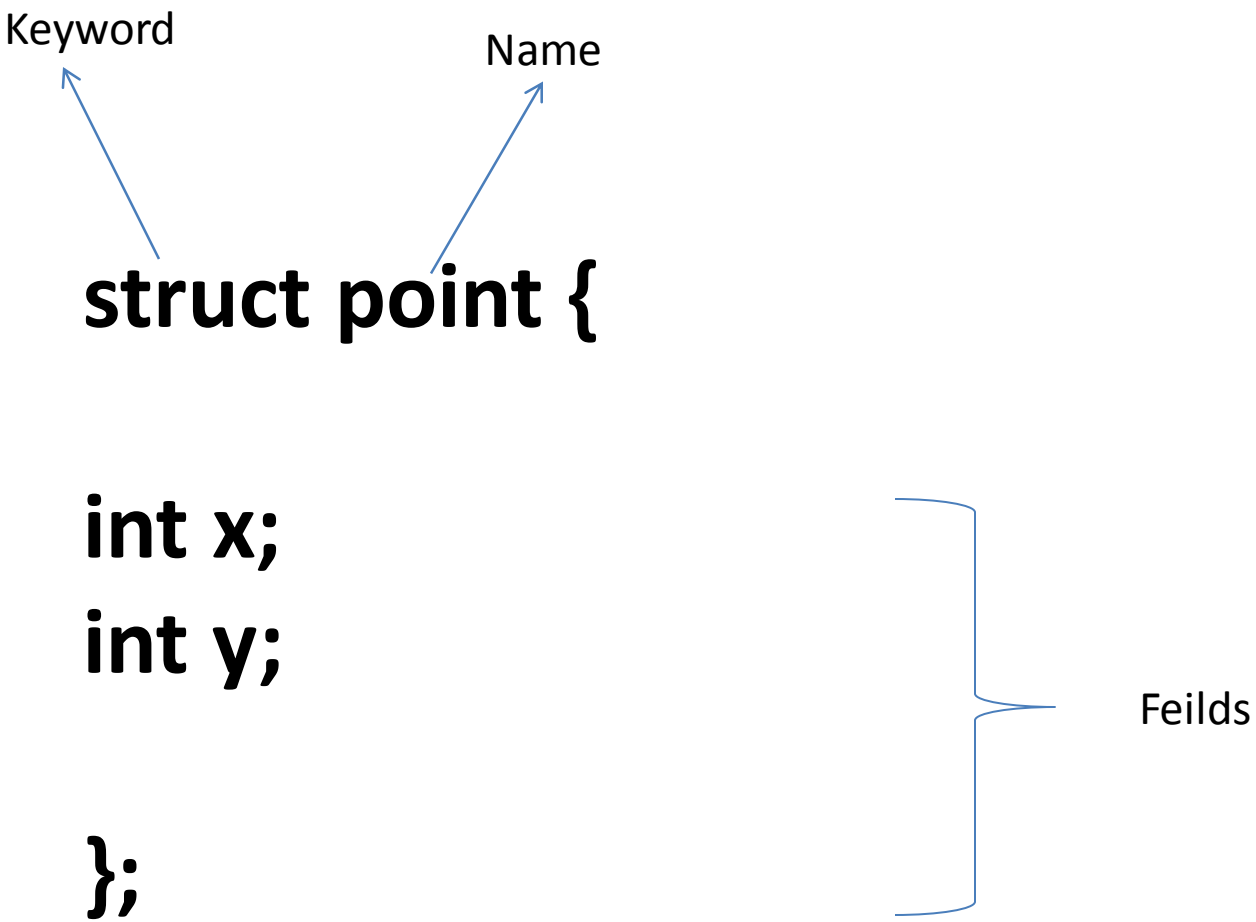
Section 4B

Programming Applications – CC213

Struct

A **struct** (or **structure**) is a collection of variables (can be of different types) under a single name.

Struct



Struct Variables

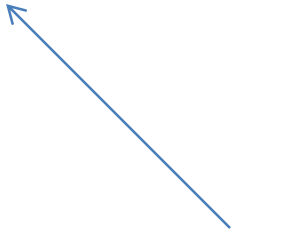
```
int main()
{
    struct point p;
  //p.x   p.y
    scanf("%d %d", &p.x,&p.y);

}
```

Access the fields of a struct

Structs as an input to functions

```
void print_point (struct point t){
        .....
}
```




```
print_point(p);
```

Structs as an output from functions

```
struct point make_point (int a, int b){
struct point temp;
……..
return temp;
}
```

```
struct point p;
p=make_point(22,17);
```

Array of structs

struct point p[8];

p[0]	p[0].x	p[0].y
p[1]	p[1].x	p[1].y
p[2]	p[2].x	p[2].y
p[3]	p[3].x	p[3].y
p[4]	p[4].x	p[4].y
p[5]	p[5].x	p[5].y
p[6]	p[6].x	p[6].y
p[7]	p[7].x	p[7].y

Array of Structs as an input to functions

```
void print_points (struct point t[]){
        .....
}
```

```
print_points(p);
```