

Unions

- Union is a user-defined data type. That allows storing diff. data types in the same memory location.
- Only one member of the Union can be accessed at a time.

Syntax:

```
Union Union-name  
{  
    member 1 - type : member 1 - name;  
    member 2 - type : member 2 - name;  
    member n - type : member n - name;  
};
```

Program:

```
#include <stdio.h>
```

```
Union data
```

```
{  
    int i;  
    float f;  
    char str[20];  
};
```

```
int main()
```

```
{  
    data.i = 10;
```

```
    printf("data.i : %d\n", data.i);
```

```
    data.f = 3.14
```

```
    printf("data.f : %.f\n", data.f);
```

```
    strcpy(data.str, "Hello");
```

```
    printf("data.str : %s\n", data.str);
```

```
    return 0;
```

```
}
```

O/P:
data.i : 10
data.f : 3.14 0000
data.str : Hello

Declaration of Union Variables:

① Union Sample

```
{  
    int a;  
    float b;  
    char c;  
};
```

③ Union Sample

```
{  
    int a;  
    float b;  
    char c;  
}
```

union Sample s

② Union.

```
{  
    int a;  
    float b;  
    char c;  
};
```

Initialization and Accessing: in Union.

program:

Union Sample

```
{  
    int a;  
    float b;  
    char c;  
};
```

};

void main()

Union Sample s = {10, 20.5, 'A'};

declaration of Union.

```
printf("a = %d", s.a);
```

```
printf("b = %d", s.b);
```

```
printf("c = %d", s.c);
```

```
}
```

O/p:

a = garbage value.

b = garbage value

c = A.