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**Mohammed Abu-Hadhoud**

MSA, PMOC, PMP®, PRINCE®, PSE-ITSM®, CS, ITIL®, MCP®, MCSD



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# Data Structures

## Level 1

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# Union

**Mohammed Abu-Hadhoud**

MBA, PMOC, PgMP®, PMP®, PMI-RMP®, CM, ITILF, MCPD, MCSD



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# What is Union?

- In C++, a union is a user-defined data type that allows you to use the same memory location for different types of data.
- The main reason to use a union is to save memory.

# Example:

```
union MyUnion
{
    int intValue;
    float floatValue;
    char charValue;
};
```

**Note:** the size of a union is determined by the size of its largest member.

Unlike structures, where each member has its own memory space, members of a union share the same memory space.

# Be careful:

- Keep in mind that unions have some limitations and should be used with caution because they can lead to undefined behavior if not used properly.
- When one member of the union is accessed, you should be careful about which member was last assigned a value.





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