

User Defined Data Types : → (Structures & Unions)

```

Struct Employee { Employee
    char name [20]; v1
    int age; v2
    int salary; v3
}; size =  $\sum_{i=1}^3 v_i$  = 28 bytes
}

```

```

union Employee {
    char name [20]; v1
    int age; v2
    int salary; v3
}; size = largest(v1, v2, v3) = 20 bytes
}

```

What is the largest size of a pointer = 8 bytes.

Structure

```

M1 → v1
M2 → v2
M3 → v3

```

All can be accessed simultaneously

\* (Assignment & Display)

largest M

v1  
v2  
v3

Common

So, we can only access any one at a time.

(Scalper)      5:00 to 8:00      (System Design)  
 \*# 06 #      (Schema Design)

Item 1 ← (Online Store) → Item 2

(Shirt)	300	price	int	Memory	Gas	price
M	size	char [10]	char [10]	Fiction	genre	int
Red	color	char [10]	Efficient	ebook	design	char [20]
Zara	brand	char [20]	10203	isbn	isbn	char [20]

Struct Store {  
 2 items  
 }  
 }

(Union of Structures)

Strings or Character Arrays:

A string is a sequence of characters: It can contain:

✓ ① Alphabets

✓ ② Numbers

✓ ③ Special Characters

✓ N Whitespace

scanf()

fgets

gets

#include <string.h>

Python ≈ 1991

Denmark

Java ≈ 1995

James Gosling

Bjarne

Rust

C + C++ = Java

James Gosling

C + SIMULA = C++

Rust

1. c → o → exe

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