# Welcome,

# PROGRAMMERS

01.



# What is Pointer of Array?

# Pointer of Array

**Pointer of Array** or **Array of Pointer** means we have to create an array of multiple pointers.

**Each pointer have allocated memory addresses of array or string elements separately.**

Using this concept, we don't have to use scale of pointer to access the array elements.

# Example of Array of Pointer

```
int a[5] = {5, 8, 4, 1, 9};
int *ptr[5], i;

for(i=0; i<=4; i++)
{
    ptr[i] = &a[i];
}
```

02.

**What is Chain of Pointer?**

# What is Chain of POINTER?

# Chain of Pointer

A **pointer to a pointer** is a concept where a **pointer variable holds the address of another pointer variable**.

This creates a **chain of indirection**.
Chain of Pointer is also known as **Pointer to Pointer**.

# Example of Pointer to Pointer

```
int a = 5;

int *p1 = &a;

int **p2 = &p1;

printf("%d", *p1);   // 5
printf("%d", **p2); // 5
```

03.



# What is POINTER with UDF?

# Pointer with UDF

To **pass a value** to the **UDF** is a common scenario, known as **“Call by Value”**.

But we can also **pass an address** to the **UDF**, known as **“Call by Reference”**.
**While, to receive an address in function definition we must**

**have to declare a parameter as a Pointer.**

# Example of Pointer with UDF (call by reference)

```c
int sum(int *p, int *q)
{
    return *p + *q;
}

void main()
{
    int a = 5, b = 2;
    printf("%d", sum(&a, &b));
}
```

# Language

Let’s start now...