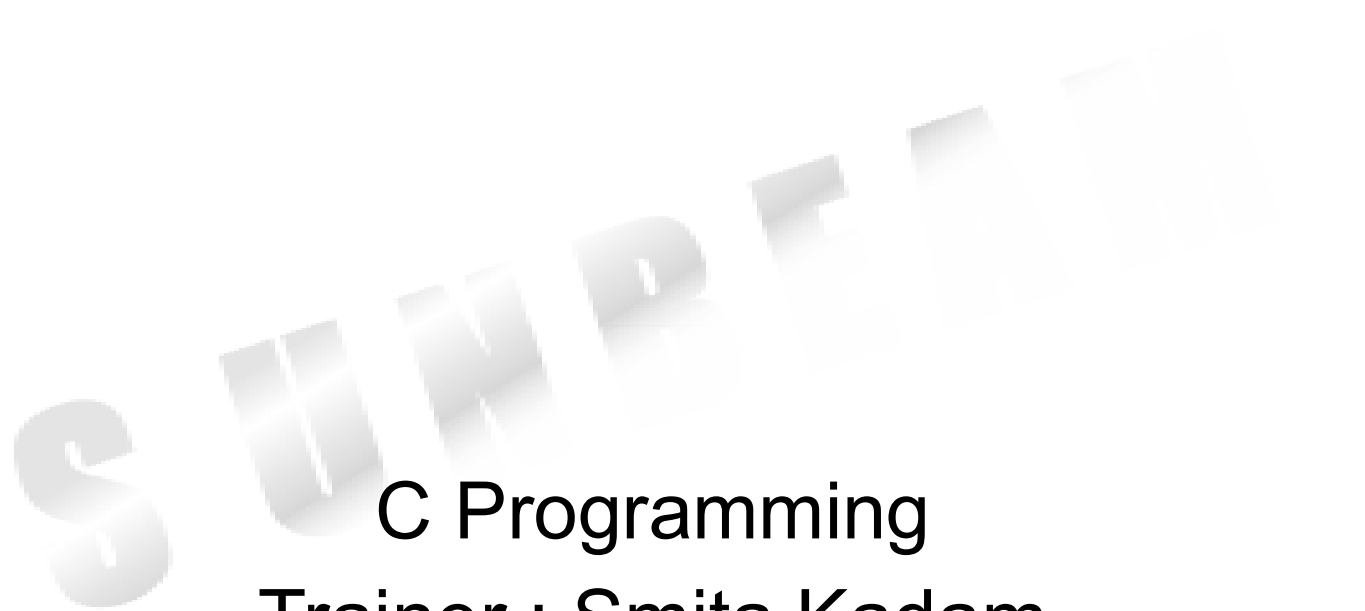


Multi Dimensional, Array of Pointers, CommandLine Arguments

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C Programming

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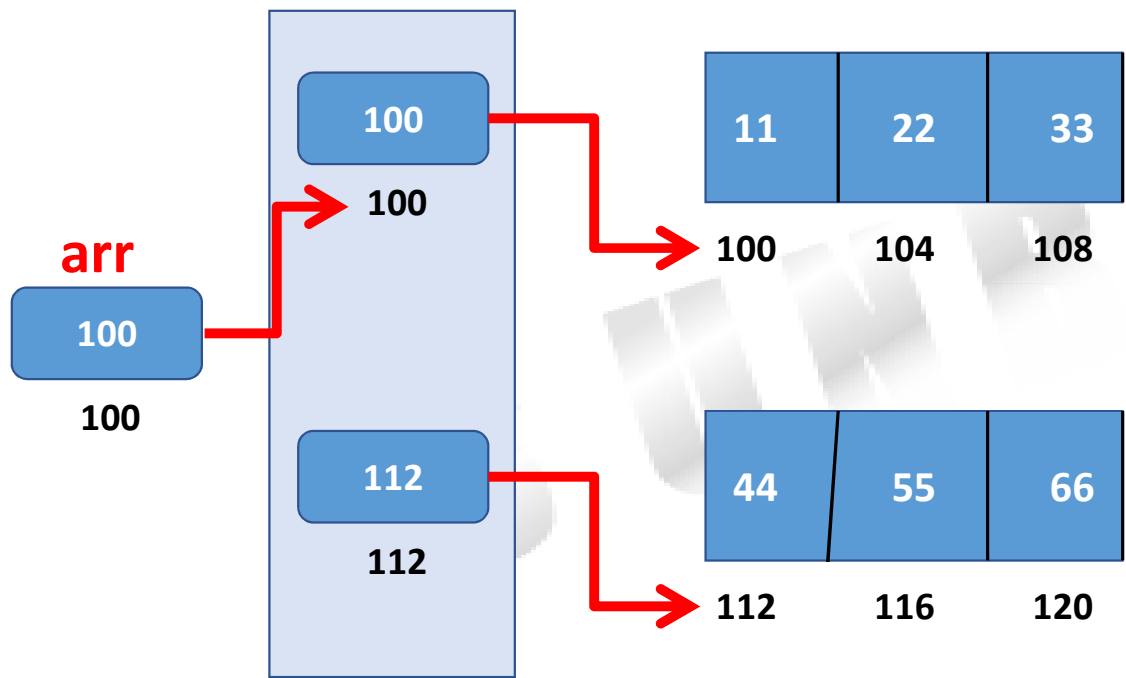
# Multi Dimensional Array

- We can declare n dimensions of array.
- Allows to represent and access data with various hierarchical manner.
  - e.g. If we want each row should have 3 columns
  - Here 2 represents row count
  - Here 3 represents column count
    - `int arr[2][3] = {{11,22,33},{44,55}};`
    - `int arr[2][3] = {11,22,33,44,55};`



# Multi Dimensional Array

```
int arr[2][3] = {{11,22,33},{44,55,66}};
```



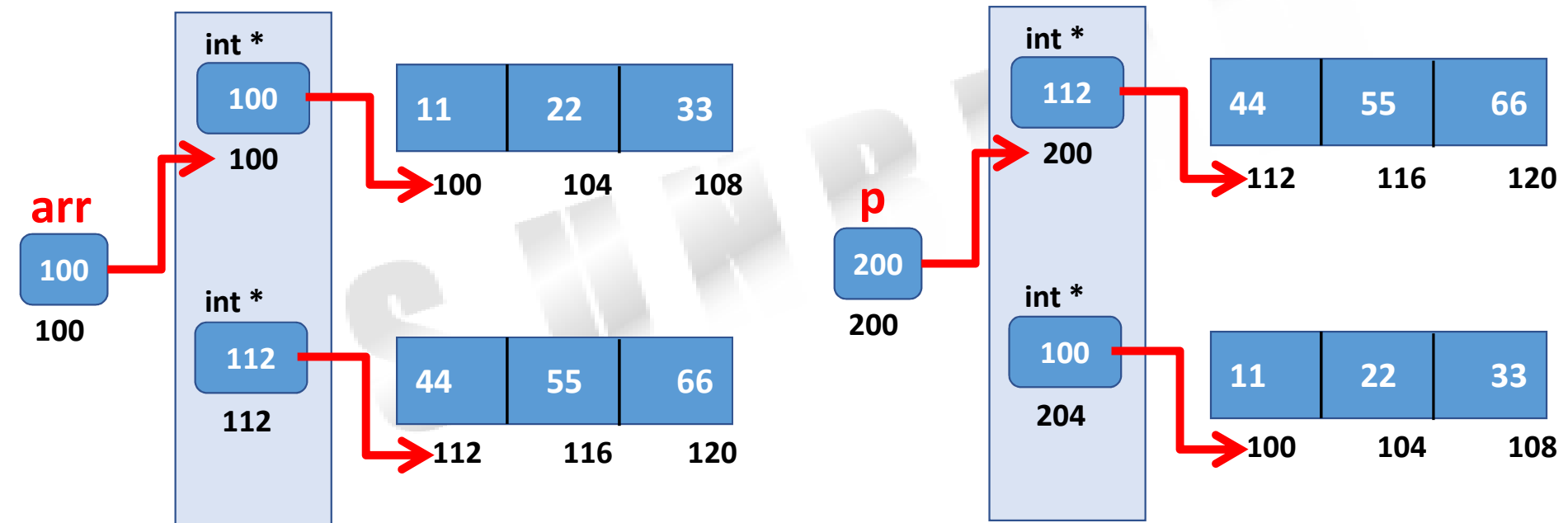
```
arr[1][1] == *(*arr+1)+1
```

`arr` = 100  
Address of row / pointer to int  
`arr+1` = 112  
Address of row / pointer to int  
`*(*arr+1)` = 112  
Address of int  
`*(*arr+1)+1` = 116  
Address of int  
`*(*(*arr+1)+1)` = 55  
int value



# Array of pointers

```
int arr[2][3] = {{11,22,33},{44,55,66}};  
int *p[2] = {*(arr+1),*(arr)};
```



# CommandLine Arguments

## Execute Application at terminal

e.g. .\a.exe Sunbeam Pune Karad

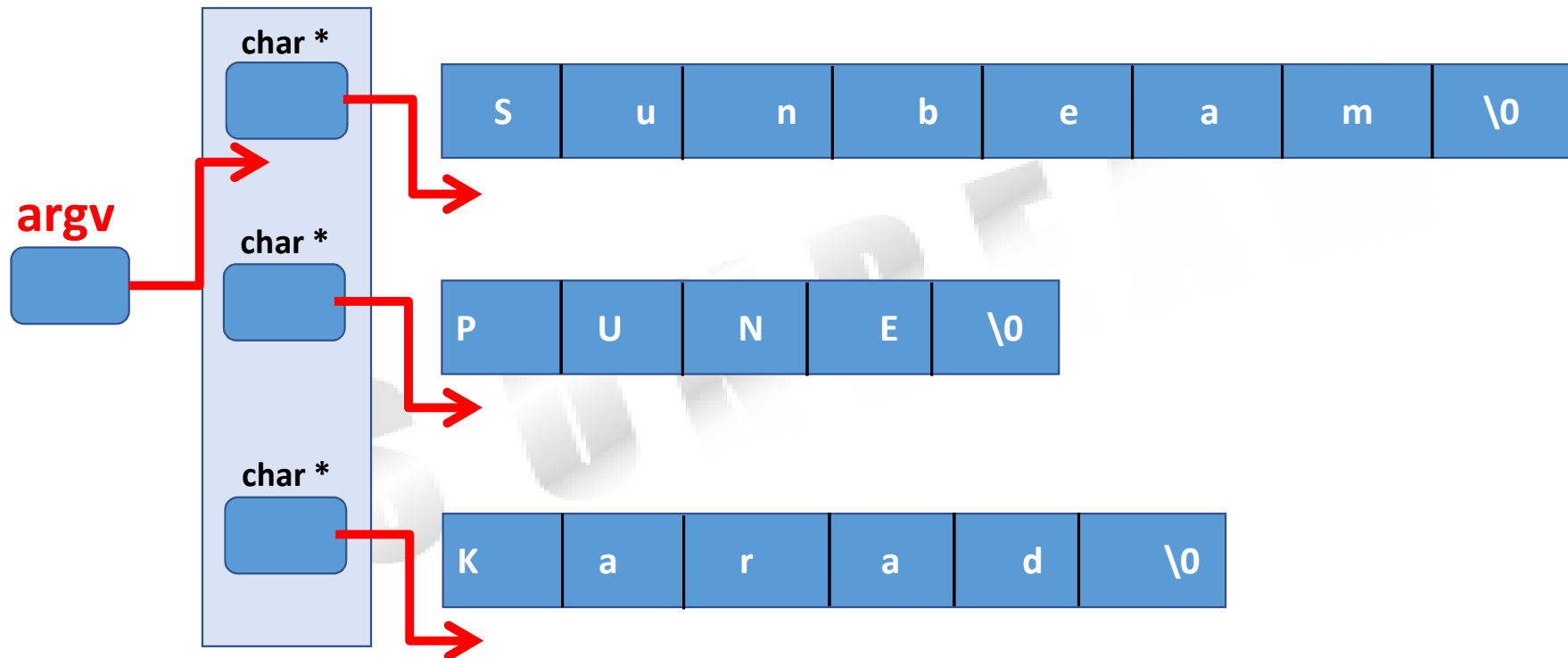
```
int main(int argc, char *argv[], char *env[])  
{  
    <statements>  
}
```

## Here ...

1. argc stores count of arguments given to main
2. argv stores list of arguments in string format
3. env stores list of environment variables in string format



# CommandLine Arguments





Thank you!

