

# Structure

*“Creating your own variable type”*

Prerequisite: None

Find more contents at  
<https://sites.google.com/view/cse105june18/home>

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# Primitive data-types

Until now, we are able to store only the following types.

```
int mark = 87;
```

```
float cgpa = 3.5;
```

```
double pi = 3.1415926535897;
```

```
char c = 'p';
```

# Custom data-type

What if we want to store the following information?

- 24/09/2018
- 24 September, 2018
- 09:23:00 am
- 34, College Avenue, Mirpur, Dhaka.
- Mr. Raihan, Age: 20, Contact Number: 1234

# Our own Date data-type

```
struct Date
{
    int day;
    int month;
    int year;
};
```

```
struct Date date1;
```

# Our own Date data-type

```
struct Date
{
    int day;
    int month;
    int year;
};
```

**struct** Date date1;



This is the name of  
the variable.

**int** mark;



Similar to the int  
here

# Our own Date data-type

```
struct Date
{
    int day;
    int month;
    int year;
};
```

```
struct Date date1;
```



This is the  
identifier  
(name of the  
variable)

```
int mark;
```

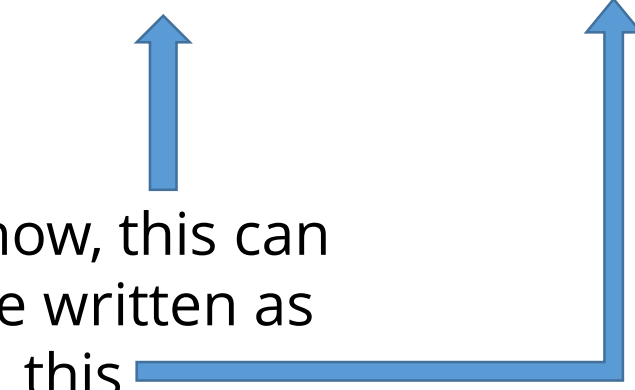


Similar to mark  
here

# A shortcut

```
typedef struct Date DATE;
```

From now, this can  
also be written as  
this



# A dedicated function

```
void printDate(Date dt)
{
    printf("%d/%d/%d", dt.day, dt.month, dt.year);
}
```



# Task 1

- Design a struct that can hold the following information  
12 : 23 : 13 am
- Typedef it
- Declare a variable, assign values to it.
- Write a function to display it.

# What if we want to store this?

24 September, 2018

# Task 2

- Design a struct that can hold the following information
  - Student Name
  - Roll
  - Batch
  - cgpa
- Typedef it
- Declare a variable, assign values to it.

# What if we want to store date of birth?

- Student Name
- Roll
- Batch
- cgpa
- Date of Birth

# Task 3

- Design a struct that can hold the following information
  - Student Name
  - Roll
  - Batch
  - cgpa
  - Date of Birth
  - Address (May contain house no, street, city etc.)
- Typedef it
- Declare a variable, assign values to it.