DATA STRUCTURE

STRUCTURES

- Structure is a user-defined data type that allows to store data items of different types.
- Structures are used to represent a record.
- Example:
- Record of student: Regno, fname,lname, admfee.
- Record of book: bookno, title, author

Defining a structure

- To define a structure, you must use the struct statement.
- The struct statement defines a new data type, with more than one member.

Syntax

```
struc struc_name
{ data_type member1;
  data_type member2;
  data_type member n;
}
```

Example

```
struc student
{ char regno[8];
  char fname[10];
  char lname[10];
  float admfee;
};
```

Declaring a structure

- Use struc, structure name and structure variable name to declare a structure.
- Syntax

```
struc structure_name structure_variable_name
```

- Example

```
struc student std;
```

Accessing structure member

- To access any member of a structure, we use the member access operator (.).
- The member access operator is coded as a period between the structure variable name and the structure member that we wish to access.

Example

- Printf (“Enter student name”);
- Scanf (“%s”,&std.regno);
- Printf (“Enter First name”);
- Scanf (“%s”,&std.fname);

```
# include <stdio.h>
 struct student{
                char regno[10];
                char name[10];
                int fees;
        };
int main()
{

        struct student std;
        printf("Enter registration number");
        scanf ("%s",&std.regno);
        printf("Enter Name");
        scanf ("%s",&std.name);
        printf("Enter Admission fees");
        scanf ("%d",&std.fees);
        printf (" %s %s %d ", std.regno,std.name,std.fees);
        return 0;
}
```