

C programming assignment

1. Creating a nested structure
2. Object should be pointer
3. Using UDF
4. Minimum 5 records
5. Using array.
6. Ascending order.

the program

```
#include <stdio.h>
#include <string.h>

struct organisation
{
    int org_id;
    char org_name[50];
};
struct employee
{
    int emp_id;
    char emp_name[20];
    struct organisation org;
};

void print(struct employee (*e)[] );

int main()
{
    struct employee (*e)[5];
    int i,j,tmp,tmp_org_id;
    char tmp_name[50],tmp_org_name[50];
    for(i=0;i<5;i++)
    {
        printf(" Enter the name of the employee[%d]: ", i + 1);
        scanf("%s", e[i]->emp_name);
        printf(" Enter the id of the employee[%d]: ", i + 1);
        scanf("%d", &e[i]->emp_id);
        printf(" Enter the name of the organisation where %s works: ",e[i]->emp_name);
        scanf("%s",e[i]->org.org_name);
        printf(" Enter the id of the organisation where %s works: ",e[i]->emp_name);
        scanf("%d",&e[i]->org.org_id);
    }
    for(i=0;i<5;i++)
    {
        for(j=i+1;j<5;j++)
        {
            if(e[i]->emp_id>e[j]->emp_id)
            {
                tmp = e[i]->emp_id;
                strcpy(tmp_name,e[i]->emp_name);
                strcpy(tmp_org_name,e[i]->org.org_name);
                tmp_org_id = e[i]->org.org_id;
                e[i]->emp_id = e[j]->emp_id;
                strcpy(e[i]->emp_name,e[j]->emp_name);
                strcpy(e[i]->org.org_name,e[j]->org.org_name);
                e[i]->org.org_id = e[j]->org.org_id;
                e[j]->emp_id = tmp;
                strcpy(e[j]->emp_name,tmp_name);
                strcpy(e[j]->org.org_name,tmp_org_name);
                e[j]->org.org_id = tmp_org_id;
            }
        }
        print(e);
    }
}

void print(struct employee (*e)[5])
{
    int i,j;
    printf("\t\t\t Employee details\n");
    printf("=====\n");
    printf("Org Name\t\tOrg Id\t\tEmp Name\t\tEmp Id\n");
    printf("=====\n");
    for(i=0;i<5;i++)
    {
        printf("%s\t\t\t%d\t\t\t%s\t\t\t%d\n",e[i]->org.org_name,e[i]->org.org_id, e[i]->emp_name, e[i]->emp_id);
    }
}
```

Algorithm

1. Create a structure for organisation details
2. Add id and name in the structure of organisation
3. Create a structure for employee details
4. Add id and name in the structure of employee and call create pointer object of structure organisation details.
5. Create pointer objects of 5 employee using array.
6. Ask the user to input all the information including organisation name, organisation id, employee name, employee id.
7. swapping all the data according ascending order.
8. creating a udf to print
9. printing all the information in the udf print function.

UDF

Creating a udf to print.