

## 20BCS042 MOHD ADIL

### PROGRAM:

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#include <stdio.h>

#include <string.h>

#include <stdlib.h>

struct employee
{
    int empid;
    char name[20];
    int salary;
    struct employee *next;
};

int count = 0;

struct employee *add(struct employee *list)
{
    struct employee *e = (struct employee *)malloc(sizeof(struct employee));
    printf("Employee id: ");
    scanf("%d", &(e)->empid);
    printf("Employee Name: ");
    scanf("%s", &(e)->name);
    printf("Employee Salary: ");
    scanf("%d", &(e)->salary);
    e->next = list;
    list = e;
    count++;
    printf("Employees Added Successfully\n");
    return list;
}

void display(struct employee *list)
{
    if (count == 0)
```

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{
    printf("No Employee to Display\n");
}
else
{
    printf("ID\tNAME\tSALARY\n");
    while (list != NULL)
    {
        printf("%d\t%s\t%d\n", (list)->empid, (list)->name, (list)->salary);
        list=list->next;
    }
}
}

void searchbyid(int id, struct employee *list)
{
    while (list != NULL)
    {
        if ((list)->empid == id)
        {
            printf("ID\tNAME\tSALARY\n");
            printf("%d\t%s\t%d\n", (list)->empid, (list)->name, (list)->salary);
            break;
        }
        list=list->next;
    }

    if (list==NULL)
    {
        printf("No such employee found\n");
    }
}

void searchbyname(char name[], struct employee *list)
{

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while (list != NULL)
{
    if (strcmp((list)->name, name) == 0)
    {
        printf("ID\tNAME\tSALARY\n");
        printf("%d\t%s\t%d\n", (list)->empid, (list)->name, (list)->salary);
        break;
    }
    list=list->next;
}

if (list== NULL)
{
    printf("No such employee found\n");
}
}

void highestsalary(struct employee *list)
{
    int maxsalary = 0;
    struct employee *temp = NULL;
    while (list != NULL)
    {
        if (list->salary >= maxsalary)
        {
            maxsalary = list->salary;
            temp = list;
        }
        list = list->next;
    }
    if (temp == NULL)
        printf("Employee not Found\n");
    else
    {

```

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printf("ID\tNAME\tSALARY\n");
printf("%d\t%s\t%d\n", (temp)->empid, (temp)->name, (temp)->salary);
}

printf("Highest Salary is %d of the Employee having id %d\n", maxsalary, temp->empid);
}
int main()
{
    struct employee *list = NULL;

    printf("Enter 1 to Add Employee\n");
    printf("Enter 2 to Display All Employee\n");
    printf("Enter 3 to Search Employee by empid\n");
    printf("Enter 4 to Search Employee by name\n");
    printf("Enter 5 to display Employee having highest Salary\n");
    printf("Enter 6 to display number of Employees\n");
    printf("Enter 7 to Exit\n");
    while (1)
    {
        int ch;
        printf("Enter your Choice: ");
        scanf("%d", &ch);
        switch (ch)
        {
            case 1:
                printf("Case 1\n");
                list = add(list);
                break;
            case 2:
                printf("Case 2\n");
                display(list);
                break;
            case 3:

```

```

    printf("Case 3\n");

    printf("Enter Employee id to Search: ");

    int id;

    scanf("%d", &id);

    searchbyid(id, list);

    break;

case 4:

    printf("Case 4\n");

    printf("Enter Employee name to search: ");

    char name[20];

    scanf("%s", name);

    searchbyname(name, list);

    break;

case 5:

    printf("Case 5\n");

    highestsalary(list);

    break;

case 6:

    printf("Case 6\n");

    printf("Total Number of Employees -> %d\n", count);

    break;

case 7:

    printf("Exiting\n");

    exit(0);

}

}

return 0;

}

```

## OUTPUT

```

PS C:\Users\aadil\Desktop\CSE\dsalab> cd "c:\Users\aadil\Desktop\CSE\dsalab\" ; if ($?) { gcc dma2.c -o dma2 }
Enter 1 to Add Employee
Enter 2 to Display All Employee
Enter 3 to Search Employee by empid
Enter 4 to Search Employee by name
Enter 5 to display Employee having highest Salary
Enter 6 to display number of Employees
Enter 7 to Exit
Enter your Choice: 1
Case 1
Employee id: 101
Employee Name: adil
Employee Salary: 1000
Employees Added Successfully
Enter your Choice: 1
Case 1
Employee id: 102
Employee Name: abu
Employee Salary: 2000
Employees Added Successfully
Enter your Choice: 1
Case 1
Employee id: 103
Employee Name: aka
Employee Salary: 3000
Employees Added Successfully
Enter your Choice: 2
Case 2


| ID  | NAME | SALARY |
|-----|------|--------|
| 103 | aka  | 3000   |
| 102 | abu  | 2000   |
| 101 | adil | 1000   |


Enter your Choice: 3
Case 3
Enter Employee id to Search: 102


| ID  | NAME | SALARY |
|-----|------|--------|
| 102 | abu  | 2000   |


Enter your Choice: 4
Case 4
Enter Employee name to search: adil


| ID  | NAME | SALARY |
|-----|------|--------|
| 101 | adil | 1000   |


Enter your Choice: 5
Case 5


| ID  | NAME | SALARY |
|-----|------|--------|
| 103 | aka  | 3000   |


Highest Salary is 3000 of the Employee having id 103
Enter your Choice: 6
Case 6
Total Number of Employees -> 3
Enter your Choice: 7
Exiting
PS C:\Users\aadil\Desktop\CSE\dsalab> 

```