20BCS042 MOHD ADIL

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

struct employee
{
   int empid;
   char name[20];
   int salary;
};
int count = 0, max;
void add(struct employee *e)
{
   if (count <= max)
   {
      printf("Employee id: ");
      scanf("%d", &(e + count)->empid);
      printf("Employee Name: ");
      scanf("%s", &(e + count)->name);
      printf("Employee Salary: ");
      scanf("%d", &(e + count)->salary);
      count++;
      printf("Employees Added Successfully\n");
   }
   else
   {
      printf("Exceeding Maximum Limit\n");
   }
```

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}
void display(struct employee *e)
{
   if (count == 0)
   {
      printf("No Employee to Display\n");
   }
   else
   {
      printf("Employee Id  |   Name  |  Salary\n\n");
      for (int i = 0; i < count; i++)
      {

         printf("   %d        %s      %d\n", (e + i)->empid, (e + i)->name, (e + i)->salary);
      }
   }
}
void searchbyid(int id,struct employee *e)
{
   if (count == 0)
   {
      printf("No Employee to Search\n");
   }
   else
   {
      int f = 0;
      for (int i = 0; i < count; i++)
      {
         if ((e + i)->empid == id)
```

```
            {
                f = 1;
                printf("Id: %d\n", (e + i)->empid);
                printf("Name: %s\n", (e + i)->name);
                printf("Salary: %d\n", (e + i)->salary);
            }
        }
        if (f == 0)
        {
            printf("No such employee found\n");
        }
    }
}
void searchbyname(char name[],struct employee *e)
{
    if (count == 0)
    {
        printf("No Employee to Search\n");
    }
    else
    {
        int f = 0;
        for (int i = 0; i < count; i++)
        {
            if (strcmp((e + i)->name, name) == 0)
            {
                f = 1;
                printf("Id: %d\n", (e + i)->empid);
                printf("Name: %s\n", (e + i)->name);
```

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            printf("Salary: %d\n", (e + i)->salary);
        }
    }
    if (f == 0)
    {
        printf("No such employee found\n");
    }
  }
}
void highestsalary(struct employee *e)
{
  int maxsalary = 0, id = 0;
  for (int i = 0; i < count; i++)
  {
    if ((e + i)->salary > maxsalary)
    {
      maxsalary = (e + i)->salary;
      id = (e + i)->empid;
    }
  }
  printf("Highest Salary is %d of the Employee having id %d\n", maxsalary, id);
}
int main()
{
  printf("Maximum Number of Employees: ");
  scanf("%d", &max);
  struct employee *e;
  e = (struct employee *)malloc(max * sizeof(struct employee));
```

```
while (1)
{
   int ch;
   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 dispay Employee having highest Salary\n");
   printf("Enetr 6 to Exit\n");
   printf("Enter your Choice: ");
   scanf("%d", &ch);
   switch (ch)
   {
   case 1:
      printf("Case 1\n");
      add(e);
      break;
   case 2:
      printf("Case 2\n");
      display(e);
      break;
   case 3:
      printf("Case 3\n");
      printf("Enter Employee id to Search: ");
      int id;
      scanf("%d", &id);
      searchbyid(id,e);
      break;
   case 4:
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            printf("Case 4\n");
            printf("Enter Employee name to search: ");
            char name[20];
            scanf("%s", name);
            searchbyname(name,e);
            break;
        case 5:
            printf("Case 5\n");
            highestsalary(e);
            break;
        case 6:
            printf("Exiting\n");
            exit(0);
        }
    }

    return 0;
}
```

OUTPUT

```
PS C:\Users\aadil\Desktop\CSE\dsalab> cd "c:\Users\aadil\Desktop\CSE\dsalab\" ; if ($?) { gcc dma.c -o dma } ; if ($?) { .\dma }
Maximum Number of Employees: 5
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 dispay Employee having highest Salary
Enetr 6 to Exit
Enter your Choice: 1
Case 1
Employee id: 101
Employee Name: Adil
Employee Salary: 5000
Employees Added Successfully
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 dispay Employee having highest Salary
Enetr 6 to Exit
Enter your Choice: 1
Case 1
Employee id: 102
Employee Name: Atif
Employee Salary: 10000
Employees Added Successfully
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 dispay Employee having highest Salary
Enetr 6 to Exit
```

```
Enter your Choice: 1
Case 1
Employee id: 103
Employee Name: Arbaz
Employee Salary: 15000
Employees Added Successfully
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 dispay Employee having highest Salary
Enetr 6 to Exit
Enter your Choice: 1
Case 1
Employee id: 104
Employee Name: Abu
Employee Salary: 12000
Employees Added Successfully
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 dispay Employee having highest Salary
Enetr 6 to Exit
Enter your Choice: 1
Case 1
Employee id: 105
Employee Name: xyz
Employee Salary: 16000
Employees Added Successfully
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 dispay Employee having highest Salary
Enetr 6 to Exit
Enter your Choice: 2
Case 2
Employee Id  |   Name  |  Salary

   101         Adil      5000
   102         Atif      10000
   103         Arbaz      15000
   104         Abu      12000
   105         xyz      16000
```

```
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 dispay Employee having highest Salary
Enetr 6 to Exit
Enter your Choice: 3
Case 3
Enter Employee id to Search: 102
Id: 102
Name: Atif
Salary: 10000
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 dispay Employee having highest Salary
Enetr 6 to Exit
Enter your Choice: 4
Case 4
Enter Employee name to search: Abu
Id: 104
Name: Abu
Salary: 12000
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 dispay Employee having highest Salary
Enetr 6 to Exit
Enter your Choice: 5
Case 5
Highest Salary is 16000 of the Employee having id 105
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 dispay Employee having highest Salary
Enetr 6 to Exit
Enter your Choice: 6
Exiting
```