

1) Write a C program to store n employee records based on EMP\_ID, EMP\_NAME, EMP\_DEPTID, EMP\_PHNO, EMP\_SALARY and display all the details of employees using EMP\_NAME in sorted order.

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

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

```
// Define structure for employee record
```

```
struct Employee {
```

```
    int EMP_ID;
```

```
    char EMP_NAME[50];
```

```
    int EMP_DEPTID;
```

```
    char EMP_PHNO[15];
```

```
    float EMP_SALARY;
```

```
};
```

```
// Function to swap two employee records
```

```
void swap(struct Employee *a, struct Employee *b) {
```

```
    struct Employee temp = *a;
```

```
    *a = *b;
```

```
    *b = temp;
```

```
}
```

```
// Function to sort employee records based on name using bubble sort
```

```
void sortByName(struct Employee arr[], int n) {
```

```
    int i, j;
```

```
    for (i = 0; i < n-1; i++) {
```

```
        for (j = 0; j < n-i-1; j++) {
```

```
            if (strcmp(arr[j].EMP_NAME, arr[j+1].EMP_NAME) > 0) {
```

```

        swap(&arr[j], &arr[j+1]);
    }
}
}
}

```

// Function to display all employee details

```

void displayEmployees(struct Employee arr[], int n) {
    printf("EMP_ID\tEMP_NAME\tEMP_DEPTID\tEMP_PHNO\t\tEMP_SALARY\n");
    for (int i = 0; i < n; i++) {
        printf("%d\t%s\t\t%d\t\t%s\t\t%.2f\n", arr[i].EMP_ID, arr[i].EMP_NAME,
arr[i].EMP_DEPTID, arr[i].EMP_PHNO, arr[i].EMP_SALARY);
    }
}

```

```

int main() {
    int n;
    printf("Enter the number of employees: ");
    scanf("%d", &n);
    // Create an array of employee records
    struct Employee employees[n];
    // Input employee details
    for (int i = 0; i < n; i++) {
        printf("Enter details for employee %d:\n", i+1);
        printf("EMP_ID: ");
        scanf("%d", &employees[i].EMP_ID);
    }
}

```

```
    printf("EMP_NAME: ");
    scanf("%s", employees[i].EMP_NAME);
    printf("EMP_DEPTID: ");
    scanf("%d", &employees[i].EMP_DEPTID);
    printf("EMP_PHNO: ");
    scanf("%s", employees[i].EMP_PHNO);
    printf("EMP_SALARY: ");
    scanf("%f", &employees[i].EMP_SALARY);
}

// Sort employee records by name
sortByName(employees, n);

// Display sorted employee details
printf("\nEmployee Details (Sorted by EMP_NAME):\n");
displayEmployees(employees, n);

return 0;
}
```