#include<stdio.h>

struct info

{

char name[20];

char dept[20];

int ID;

float CGPA;

int age;

};

struct info stud[5], extra[0];

int main()

{

int i, press, p, q, r, temp;

for(i = 0; i < 5; ++i)

{

printf("Enter the name: ");

scanf("%s",stud[i].name);

printf("Enter the ID of %s: ", stud[i].name);

scanf("%d",&stud[i].ID);

printf("Enter the Department Name of %s: ", stud[i].name);

scanf("%s",&stud[i].dept);

printf("Enter the CGPA of %s: ", stud[i].name);

scanf("%f",&stud[i].CGPA);

printf("Enter the age of %s: ", stud[i].name);

scanf("%d",&stud[i].age);

printf("\nnext\n");

}

printf("Press:\n 1 for list\n 2 to search by serial no\n 3 to sort by ID\n 4 to sort by CGPA\n");

printf("\nPlease enter your choice: ");

scanf("%d",&press);

if(press == 1)

{

printf("Here's the list\n");

for(i = 0; i < 5; i++)

{

printf("\nName: %s", stud[i].name);

printf("\nDepartment: %s", stud[i].dept);

printf("\nAge: %d", stud[i].age);

printf("\nID: %d", stud[i].ID);

printf("\nCGPA: %0.3f", stud[i].CGPA);

printf("\n\n");

}

}

else if(press == 2)

{

printf("Please enter the serial no: ");

scanf("%d",&i);

i--;

printf("\nName: %s", stud[i].name);

printf("\nDepartment: %s", stud[i].dept);

printf("\nAge: %d", stud[i].age);

printf("\nID: %d", stud[i].ID);

printf("\nCGPA: %0.3f", stud[i].CGPA);

printf("\n");

}

else if(press == 3)

{

printf("List is sorted in ascending order for ID...\n");

for(p = 0; p < 5; p++)

{

for(q = 0; q < 4; q++)

{

if(stud[q].ID > stud[q+1].ID)

{

extra[q] = stud[q];

stud[q] = stud[q+1];

stud[q+1] = extra[q];

}

}

}

for(i = 0; i < 5; i++)

{

printf("\nName: %s", stud[i].name);

printf("\nDepartment: %s", stud[i].dept);

printf("\nAge: %d", stud[i].age);

printf("\nID: %d", stud[i].ID);

printf("\nCGPA: %0.3f", stud[i].CGPA);

printf("\n\n");

}

}

else if(press == 4)

{

printf("List is sorted in ascending order for CGPA...\n");

for(p = 0; p < 5; p++)

{

for(q = 0; q < 4; q++)

{

if(stud[q].CGPA > stud[q+1].CGPA)

{

extra[q] = stud[q];

stud[q] = stud[q+1];

stud[q+1] = extra[q];

}

}

}

for(i = 0; i < 5; i++)

{

printf("\nName: %s", stud[i].name);

printf("\nDepartment: %s", stud[i].dept);

printf("\nAge: %d", stud[i].age);

printf("\nID: %d", stud[i].ID);

printf("\nCGPA: %0.3f", stud[i].CGPA);

printf("\n\n");

}

}

return 0;

}