```c
//Name: Mehmet Fatih Çelik
//ID: 2385268

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

#define cons 15

char ** populate_list(char **, int *);
void count_courses(char **, int, int *, int *);
void display_frequency(int, int);

int main(){
        int i, size;
        char **courseNames;

        courseNames = populate_list(courseNames, &size);

        int freqCNG, freqEEE;
        count_courses(courseNames, size, &freqCNG, &freqEEE);
        display_frequency(freqCNG, freqEEE);

        for(i=0;i<size;i++)//freeing 2-D array
                free(courseNames[i]);
        free(courseNames);

        return 0;
}

char ** populate_list(char **courseNames, int *size){
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char **courseNames2;
int num = 10; /* since I dont know how many course will user input, I created limit of 10,
if user exceeds this limit, I will reallocate my array with 5 more limit.*/

courseNames = (char**)malloc(num*sizeof(char*)); //rows allocation
if (courseNames == NULL){
        printf("Out of memory!");
        exit(-1);
}

printf("Enter the list of courses:\n");
int i = 0, spaceController, j;
char inp[cons];

do{
        gets(inp);

        spaceController = 0;
        for(j=0;j<strlen(inp);j++){ // if there is space it will be 1
                if (inp[j] == 32){
                        spaceController=1;
                        break;
                }
        }

        if(!spaceController && strcmp(inp,"Exit"))// if controller is 0 give error
                printf("Wrong course name! Course name format is departmentcode
coursecode\n");

        else if(strncmp(inp,"CNG",3) && strncmp(inp,"EEE",3) && strcmp(inp,"Exit"))
                printf("Wrong course name! Course name should start with EEE or CNG!\n");
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            else if(strcmp(inp,"Exit")){

                    if (i>=num){ // reallocation condition

                            num +=5;

                            courseNames2 = (char**)realloc(courseNames,num*sizeof(char*));

                            free(courseNames);

                            courseNames = courseNames2; /*This method worked fine, if any
other more efficient way exists please feedback me */


                            if (courseNames == NULL){

                                    printf("Out of memory for reallocation");

                                    exit(-1);

                            }

                    }


                    courseNames[i] = (char *)malloc(cons*sizeof(char)); // columns allocation
                    if(courseNames == NULL){

                            printf("Out of memory!");

                            exit(-1);

                    }


                    strcpy(courseNames[i], inp);

                    i++; // for other allocations

            }

    }while(strcmp(inp,"Exit"));


    *size = i;


    return courseNames;

}
```

```c
void count_courses(char **courseNames, int size, int *freqCNG, int *freqEEE){

        *freqCNG = 0;

        *freqEEE = 0;

        int i;


        for(i=0;i<size;i++){

                if(!strncmp(courseNames[i],"CNG",3))

                        (*freqCNG)++;

                else if(!strncmp(courseNames[i],"EEE",3))

                        (*freqEEE)++;

        }

}


void display_frequency(int freqCNG, int freqEEE){

        printf("\nNumber of courses per department:\n");

        printf("CNG : %d\n",freqCNG);

        printf("EEE : %d",freqEEE);

}
```