**TRINITY INTERNATIONAL SS & COLLEGE**

**Dillibazar Height, Kathmandu, Nepal**

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**CASE STUDY: C-Programming (File Handling)**

**(COMPUTER SCIENCE)**

**SUBMITTED BY: SUBMITTED TO:**

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**GRADE: XII (MA2)**

**DATE : [2023/09/08] DAYA RAM YADAV**

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| Source Code:  #include<stdio.h>  #include<conio.h>  #include<string.h>  #include<stdlib.h>  #include<windows.h>  // structure to store item;  struct i {      int id;      char name[50];  };  // function to create a new item;  struct i createi(int id, const char \*name) {      struct i newi;      newi.id = id;      strcpy(newi.name, name);      return newi;  }  // function prototypes;  void add(FILE \*p);  void display(FILE \*p);  void update(FILE \*p);  void del(FILE \*p);  int menu();  // main function;  int main(){      printf("Author: \t Prashim Timsina. \n");      printf("Program: \t Use ftell(),fseek and rewind().\n\n");      int c;      FILE \*p;      while(1){          p = fopen("case\_study.txt","a+");          c = menu();          switch (c) {              case 1:                  printf("\e[1;1H\e[2J");                  add(p);                  break;              case 2:                  printf("\e[1;1H\e[2J");                  display(p);                  break;              case 3:                  printf("\e[1;1H\e[2J");                  update(p);                  break;              case 4:                  printf("\e[1;1H\e[2J");                  del(p);                  break;              case 5:                  fclose(p);                  printf("\nProgram exited.\n");                  exit(0);              default:                  printf("Invalid choice. Please try again.\n");          }          printf("\e[1;1H\e[2J");          fclose(p);      }      return 0;  }  // function for displaying menu;  int menu(){      int c;      printf("\n---------------------");      printf("\nMenu:\n");      printf("---------------------\n");      printf("1. Add Item\n");      printf("2. Display Items\n");      printf("3. Update Item\n");      printf("4. Delete Item\n");      printf("5. Exit\n");      printf("---------------------\n");      printf("\nYour choice is: ");      scanf("%d", &c);      return c;  }  // function for adding data;  void add(FILE \*p){        printf("\n---------------------\n");      printf("ADDING DATA...\n");      printf("---------------------\n");        int id;      char name[50];      printf("Enter ID: ");      scanf("%d", &id);      printf("Enter Name: ");      scanf("%s", name);      struct i newi = createi(id, name);      fprintf(p, "%d %s\n", newi.id, newi.name);        printf("\nItem added successfully!\n");      printf("\nPress Enter to continue...");      getch();  }  // function for displaying data;  void display(FILE \*p){      rewind(p);        printf("\n---------------------\n");      printf("PRINTING DATA...\n");      printf("---------------------\n");      struct i currenti;      printf("\nItems in the file:\n\n");      printf("--\t\t----\n");      printf("Id\t\tName\n");      printf("--\t\t----\n");      while (fscanf(p, "%d %s", &currenti.id, currenti.name) != EOF) {          printf("%d\t\t%s\n", currenti.id, currenti.name);      }      printf("\n\nPress Enter to continue...");      getch();  }  // function for updating data;  void update(FILE \*p){        FILE \*tf;      tf = fopen("temp.txt", "w");        printf("\n---------------------\n");      printf("UPDATING DATA...\n");      printf("---------------------\n");        int id;      char newn[50];      printf("Enter the ID of the item to update: ");      scanf("%d", &id);      struct i currenti;      long int currentp = ftell(p);      while (fscanf(p, "%d%s", &currenti.id, currenti.name) != EOF) {          if(currenti.id != id){              fprintf(tf,"%d %s\n", currenti.id, currenti.name);          }          else{              printf("\nEntering new data...\n\n");              printf("Enter Name: ");              scanf("%s", newn);              fprintf(tf, "%d %s\n", currenti.id, newn);          }      }      fclose(p);      fclose(tf);      // Replace the original file with the temp file      remove("case\_study.txt");      rename("temp.txt", "case\_study.txt");        printf("\nItem Updated successfully!\n");      printf("\nPress Enter to continue...");        getch();  }  // function to delete a data;  void del(FILE \*p){        printf("\n---------------------\n");      printf("DELETING DATA...\n");      printf("---------------------\n");        int id;      printf("Enter the ID of the item to delete: ");      scanf("%d", &id);      struct i currenti;      long int currentp = ftell(p);      FILE \*tf;      tf = fopen("temp.txt", "w");      while (fscanf(p, "%d %s", &currenti.id, currenti.name) != EOF) {          if (currenti.id != id) {              fprintf(tf, "%d %s\n", currenti.id, currenti.name);          }          currentp = ftell(p);      }      fclose(p);      fclose(tf);      // Replace the original file with the temp file      remove("case\_study.txt");      rename("temp.txt", "case\_study.txt");      printf("\nItem deleted successfully!\n");      printf("\nPress Enter to continue...");      getch();  } |

