**Hello.c**

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

// user defined
typedef struct student {
    int roll;
    float cgpa;
    char name[100];
} stu ;

typedef struct computerengineeringstudent {
    int roll;
    float cgpa;
    char name[100];
} coe;

struct address {
    int houseNO;
    int block;
    char city[100];
    char state[100];

};

void printAdd(struct address add);

int main() {
    struct address adds[5];
    // input
    printf("enter info for person 1 : ");
    scanf("%d", &adds[0].houseNO);
    scanf("%d", &adds[0].block);
    scanf("%s", adds[0].city);
    scanf("%s", adds[0].state);

    printf("enter info for person 2 : ");
    scanf("%d", &adds[1].houseNO);
    scanf("%d", &adds[1].block);
    scanf("%s", adds[1].city);
    scanf("%s", adds[1].state);

    printf("enter info for person 3 : ");
    scanf("%d", &adds[2].houseNO);
    scanf("%d", &adds[2].block);
    scanf("%s", adds[2].city);
    scanf("%s", adds[2].state);

    printf("enter info for person 4 : ");
```

```
    scanf("%d", &adds[3].houseNO);
    scanf("%d", &adds[3].block);
    scanf("%s", adds[3].city);
    scanf("%s", adds[3].state);

    printf("enter info for person 5 : ");
    scanf("%d", &adds[4].houseNO);
    scanf("%d", &adds[4].block);
    scanf("%s", adds[4].city);
    scanf("%s", adds[4].state);

    printAdd(adds[0]);
    printAdd(adds[1]);
    printAdd(adds[2]);
    printAdd(adds[3]);
    printAdd(adds[4]);


    return 0;
}

void printAdd(struct address add) {
    printf("address is : %d, %d, %s, %s\n", add.houseNO, add.block, add.city, add.state);
}

```

**Hello.c**

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

// user defined
typedef struct student {
    int roll;
    float cgpa;
    char name[100];
} stu ;

typedef struct computerengineeringstudent {
    int roll;
    float cgpa;
    char name[100];
} coe;

struct address {
    int houseNO;
    int block;
    char city[100];
    char state[100];

};

struct vector {
    int x;
    int y;
};


void calcSum(struct vector v1, struct vector v2, struct vector sum);
int main() {
    struct vector v1 = {5, 10};
    struct vector v2 = {3, 7};
    struct vector sum = {0};

    calcSum(v1, v2, sum);
    return 0;
}

void calcSum(struct vector v1, struct vector v2, struct vector sum) {
    sum.x = v1.x + v2.x;
    sum.y = v1.y + v2.y;

    printf("sum of x is %d\n", sum.x);
    printf("sum of y is %d\n", sum.y);
}

```

**Hello.c**

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

// user defined
typedef struct student {
    int roll;
    float cgpa;
    char name[100];
} stu ;
typedef struct computerengineeringstudent {
    int roll;
    float cgpa;
    char name[100];
} coe;
struct address {
    int houseNO;
    int block;
    char city[100];
    char state[100];
};
struct vector {
    int x;
    int y;
};
struct complex {
    int real;
    int imag;
};

int main() {
    struct complex number1 = {5, 8};
    struct complex *ptr = &number1;
    printf("real part = %d\n", ptr->real);
    printf("imaginary part = %d\n", ptr->imag);
    return 0;
}

void calcSum(struct vector v1, struct vector v2, struct vector sum) {
    sum.x = v1.x + v2.x;
    sum.y = v1.y + v2.y;

    printf("sum of x is %d\n", sum.x);
    printf("sum of y is %d\n", sum.y);
}

```

**Account.c**

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

// user defined
typedef struct student
{
    int roll;
    float cgpa;
    char name[100];
} stu;
typedef struct computerengineeringstudent
{
    int roll;
    float cgpa;
    char name[100];
} coe;
struct address
{
    int houseNO;
    int block;
    char city[100];
    char state[100];
};
struct vector
{
    int x;
    int y;
};
struct complex
{
    int real;
    int imag;
};
typedef struct BankAccount
{
    int accountNo;
    char name[100];
    float balance;
} acc;

int main()
{
    acc acc1 = {123, "Shubham"};
    acc1.balance = 5000.0;
    acc acc2 = {124, "Rajat"};
    acc2.balance = 2000.0;
    acc acc3 = {125, "Nitesh"};
    acc3.balance = 3000.0;
```

```
    printf("Account no = %d\n", acc1.accountNo);
    printf("Account name = %s\n", acc1.name);
    printf("Account balance = %f\n", acc1.balance);

    printf("Account no = %d\n", acc2.accountNo);
    printf("Account name = %s\n", acc2.name);
    printf("Account balance = %f\n", acc2.balance);

    printf("Account no = %d\n", acc3.accountNo);
    printf("Account name = %s\n", acc3.name);
    printf("Account balance = %f\n", acc3.balance);
    return 0;
}

void calcSum(struct vector v1, struct vector v2, struct vector sum)
{
    sum.x = v1.x + v2.x;
    sum.y = v1.y + v2.y;

    printf("sum of x is %d\n", sum.x);
    printf("sum of y is %d\n", sum.y);
}

```

**Hello.c**

```c
#include <stdio.h>

int main() {
    FILE *fptr;
    fptr = fopen("NewTest.txt", "r");
    if(fptr == NULL) {
        printf("file doesn't exist\n");
    } else {
        fclose(fptr);
    }

    return 0;
}
```

**fileopen.c**

```c
#include <stdio.h>

int main()
{
    FILE *fptr;
    fptr = fopen("Test.txt", "r");

    char ch;
    fscanf(fptr, "%c", &ch);
    printf("character = %c\n", ch);
    fscanf(fptr, "%c", &ch);
    printf("character = %c\n", ch);
    fscanf(fptr, "%c", &ch);
    printf("character = %c\n", ch);
    fscanf(fptr, "%c", &ch);
    printf("character = %c\n", ch);
    fscanf(fptr, "%c", &ch);
    printf("character = %c\n", ch);

    fclose(fptr);
    return 0;
}
```

**Hello.c**

```c
#include <stdio.h>

int main() {
    FILE *fptr;
    fptr = fopen("Test.txt", "r");

    int ch;
    fscanf(fptr, "%d", &ch);
    printf("character = %d\n", ch);
    fscanf(fptr, "%d", &ch);
    printf("character = %d\n", ch);
    fscanf(fptr, "%d", &ch);
    printf("character = %d\n", ch);

    fclose(fptr);
    return 0;
}
```

**Hello.c**

```c
#include <stdio.h>

int main() {
    FILE *fptr;
    fptr = fopen("Test.txt", "w");

    fprintf(fptr, "%c", 'M');
    fprintf(fptr, "%c", 'A');
    fprintf(fptr, "%c", 'N');
    fprintf(fptr, "%c", 'G');
    fprintf(fptr, "%c", 'O');

    fclose(fptr);
    return 0;
}
```

**Hello.c**

```c
#include <stdio.h>

int main() {
    FILE *fptr;
    fptr = fopen("Test.txt", "a");

    fprintf(fptr, "%c", 'M');
    fprintf(fptr, "%c", 'A');
    fprintf(fptr, "%c", 'N');
    fprintf(fptr, "%c", 'G');
    fprintf(fptr, "%c", 'O');

    fclose(fptr);
    return 0;
}
```

**Hello.c**

```c
#include <stdio.h>

int main() {
    FILE *fptr;
    fptr = fopen("Test.txt", "r");

    printf("%c\n", fgetc(fptr));
    printf("%c\n", fgetc(fptr));
    printf("%c\n", fgetc(fptr));
    printf("%c\n", fgetc(fptr));
    printf("%c\n", fgetc(fptr));

    // fprintf(fptr, "%c", 'M');
    // fprintf(fptr, "%c", 'A');
    // fprintf(fptr, "%c", 'N');
    // fprintf(fptr, "%c", 'G');
    // fprintf(fptr, "%c", 'O');

    fclose(fptr);
    return 0;
}
```

**Hello.c**

```c
#include <stdio.h>

int main() {
    FILE *fptr;
    fptr = fopen("Test.txt", "w");

    fputc('M', fptr);
    fputc('A', fptr);
    fputc('N', fptr);
    fputc('G', fptr);
    fputc('O', fptr);

    fclose(fptr);
    return 0;
}
```

**Hello.c**

```c
#include <stdio.h>

int main() {
    FILE *fptr;
    fptr = fopen("Test.txt", "r");
    char ch;
    ch = fgetc(fptr);
    while (ch != EOF) {
        printf("%c", ch);
        ch = fgetc(fptr);
    }
    printf("\n");

    fclose(fptr);
    return 0;
}
```

**Hello.c**

```c
#include <stdio.h>

int main() {
    FILE *fptr;
   fptr = fopen("test.txt", "r");
   int n;
   fscanf(fptr, "%d", &n);
   printf("number = %d\n", n);
   fscanf(fptr, "%d", &n);
   printf("number = %d\n", n);
   fscanf(fptr, "%d", &n);
   printf("number = %d\n", n);
   fscanf(fptr, "%d", &n);
   printf("number = %d\n", n);
   fscanf(fptr, "%d", &n);
   printf("number = %d\n", n);

   fclose(fptr);
   return 0;
}
```

**Hello.c**

```c
#include <stdio.h>

int main() {
    FILE *fptr;
   fptr = fopen("Student.txt", "w");

   char name[100];
   int age;
   float cgpa;

   printf("enter name : ");
   scanf("%s", &name);
   printf("enter age : ");
   scanf("%d", &age);
   printf("enter cgpa : ");
   scanf("%f", &cgpa);

   fprintf(fptr, "%s\t", name);
   fprintf(fptr, "%d\t", age);
   fprintf(fptr, "%f", cgpa);

   fclose(fptr);
   return 0;
}
```

**Hello.c**

```c
#include <stdio.h>

int main() {
    FILE *fptr;
   fptr = fopen("Student.txt", "w");

   char name[100];
   int age;
   float cgpa;

   printf("enter name : ");
   scanf("%s", &name);
   printf("enter age : ");
   scanf("%d", &age);
   printf("enter cgpa : ");
   scanf("%f", &cgpa);

   fprintf(fptr, "student name : %s\n", name);
   fprintf(fptr, "student age : %d\n", age);
   fprintf(fptr, "student cgpa : %.2f", cgpa);

   fclose(fptr);
   return 0;
}
```

**Hello.c**

```c
#include <stdio.h>

int main() {
    FILE *fptr;
   fptr = fopen("Odd.txt", "w");

   int n;
   printf("enter n :");
   scanf("%d", &n);

   for(int i=1; i<=n; i++) {
       if(i % 2 != 0) {
           fprintf(fptr, "%d\n", i);
       }
   }

   fclose(fptr);
   return 0;
}
```

**Hello.c**

```c
#include <stdio.h>

int main() {
    FILE *fptr;
    fptr = fopen("Sum.txt", "r");

    int a;
    fscanf(fptr, "%d", &a);
    int b;
    fscanf(fptr, "%d", &b);

    fclose(fptr);

    fptr = fopen("Sum.txt", "w");
    fprintf(fptr, "%d", a + b);
    fclose(fptr);
    return 0;
}
```

**Hello.c**

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

int main() {
    int *ptr;
    ptr = (int *) malloc(5 * sizeof(int));

    ptr[0] = 1;
    ptr[1] = 3;
    ptr[2] = 5;
    ptr[3] = 7;
    ptr[4] = 9;

    for(int i = 0; i < 5; i++) {
        printf("%d\n", ptr[i]);
    }

    return 0;
}
```

**Hello.c**

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

int main() {
    float *ptr;
    ptr = (float *) malloc(5 * sizeof(float));

    ptr[0] = 1;
    ptr[1] = 3;
    ptr[2] = 5;
    ptr[3] = 7;
    ptr[4] = 9;

    for(int i = 0; i < 5; i++) {
        printf("%f\n", ptr[i]);
    }

    return 0;
}
```

**Hello.c**

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

int main() {
    float *ptr;
    ptr = (float *) calloc(5, sizeof(float));

    for(int i = 0; i < 5; i++) {
        printf("%f\n", ptr[i]);
    }

    return 0;
}
```

**Hello.c**

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

int main() {
    int *ptr;
    int n;
    printf("enter n : ");
    scanf("%d", &n);

    ptr = (int *) calloc(n, sizeof(int));

    for(int i=0; i<n; i++) {
        printf("%d\n", ptr[i]);
    }

    return 0;
}
```

**Hello.c**

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

int main() {
    int *ptr;
    int n;
    printf("enter n : ");
    scanf("%d", &n);

    ptr = (int *) calloc(n, sizeof(int));

    for(int i=0; i<n; i++) {
        printf("%d\n", ptr[i]);
    }

    free(ptr);

    ptr = (int *) calloc(2, sizeof(int));
    for(int i=0; i<n; i++) {
        printf("%d\n", ptr[i]);
    }

    return 0;
}
```

**Hello.c**

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

int main() {
    int *ptr;
    int n;
    printf("enter n : ");
    scanf("%d", &n);

    ptr = (int *) calloc(n, sizeof(int));

    for(int i=0; i<n; i++) {
        printf("%d\n", ptr[i]);
    }

    free(ptr);

    ptr = (int *) calloc(2, sizeof(int));
    for(int i=0; i<2; i++) {
        printf("%d\n", ptr[i]);
    }

    return 0;
}
```

**Hello.c**

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

int main() {
    int *ptr;
    ptr = (int *) calloc(5, sizeof(int)); // Allocate memory for 5 integers

    printf("enter numbers(5) : ");
    for(int i=0; i<5; i++) {
        scanf("%d", &ptr[i]); // Read integers into allocated memory
    }

    ptr = realloc(ptr, 8); // Resize memory to hold 8 integers
    printf("enter numbers(8) : ");
    for(int i=0; i<8; i++) {
        scanf("%d", &ptr[i]); // Read additional integers into resized memory
    }

    // Print all integers
    for(int i=0; i<8; i++) {
        printf("number %d is %d", i, ptr[i]); // Print each integer
    }
    return 0;
}
```

**Hello.c**

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

int main() {
    int *ptr;
    ptr = (int *) calloc(5, sizeof(int));

    printf("enter numbers(5) : ");
    for(int i=0; i<5; i++) {
        scanf("%d", &ptr[i]);
    }

    ptr = realloc(ptr, 8);
    ptr = realloc(ptr, 6 * sizeof(int));
    printf("enter numbers(8) : ");
    for(int i=0; i<8; i++) {
        scanf("%d", &ptr[i]);
    }

    // Print
    for(int i=0; i<8; i++) {
        printf("number %d is %d\n", i, ptr[i]);
    }

    return 0;
}
```