Function:

**Cheak prime num:**

#include <stdio.h>

int primeNum(int result)

{

int num, i, j, flag=0, sum = 0;

printf("Enter a positive integer: ");

scanf("%d", &num);

// find all number upto N

for (j = 2; j <= num; ++j) {

flag = 0; // Reset flag for each number

// Check j is divisible by i or not

for (i = 2; i<=j/2 ; ++i) {

if (j % i == 0) {

flag = 1;

break;

}

}

// Prime number found, if flag=0

if (flag == 0) {

sum += j; // Add to sum

}

}

return sum;

}

//main function start from here

int main()

{

int sum,result=0;

//call primeNumber function and pass arguments 0 for getting result

sum = primeNum(result);

// Print the sum of primes

printf("\nSum of primes = %d\n", sum);

return 0;

}

**Pointer 1:**

#include<stdio.h>

int main(){

int myAge = 43;

int\* ptr = &myAge;

printf("%d\n", myAge);

printf("%p\n", &myAge);

printf("%p\n", ptr);

}

#include<stdio.h>

int main(){

int myNumbers[4] = {25, 50, 75, 100};

int i;

for (i = 0; i < 4; i++) {

printf("%p\n", &myNumbers[i]);

}

}

**Pointer 2:**

#include <stdio.h>

void swap(int \*a, int \*b) {

int temp = \*a;

\*a = \*b;

\*b = temp;

}

int main() {

int x = 10, y = 20;

printf("Before swap: x = %d, y = %d\n", x, y);

swap(&x, &y);

printf("After swap: x = %d, y = %d\n", x, y);

return 0;

}

**Structure 👍**

#include <stdio.h>

int index=0;

struct library

{

int book\_ID;

int year;

char title[100];

char author[100];

};

struct library data[100]; //data array for storing all books

//AddBook function for adding data

void addBook() {

printf("Enter Book ID: ");

scanf("%d", &data[index].book\_ID);

getchar();

printf("Enter Book Title: ");

gets(data[index].title);

printf("Enter Book Author: ");

gets(data[index].author);

printf("Enter Book published Year: ");

scanf("%d", &data[index].year);

++index;

}

//display function for displaying latest all data

void displayBook() {

printf("\n");

printf("Library Collection:\n");

for (int i = 0; i < index; i++) {

printf("ID : %d\n", data[i].book\_ID);

printf("title : %s\n", data[i].title);

printf("Author : %s\n", data[i].author);

printf("year : %d\n", data[i].year);

printf("\n");

}

}

//search function to finding specific value

void serchBook(){

int search\_ID;

int found=0,i;

printf("Enter Search ID: ");

scanf("%d",&search\_ID);

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

if(data[i].book\_ID==search\_ID){

found++;

break;

}

}

if(found==1){

printf("\nBook Found: \n");

printf("ID : %d\n", data[i].book\_ID);

printf("title : %s\n", data[i].title);

printf("Author : %s\n", data[i].author);

printf("year : %d\n", data[i].year);

printf("\n");

}

else if(found==0){

printf("\nData Not Found\n");

}

}

int main() {

int n;

int run = 1; // Use this to control the loop

while (run) {

// Display menu

printf("\n1. Add Book\n");

printf("2. Display Books\n");

printf("3. Search Books\n");

printf("10. Exit\n");

printf("Choose an option: ");

scanf("%d", &n);

// Handle user choice

switch (n) {

case 1:

addBook();

break;

case 2:

displayBook();

break;

case 3:

serchBook();

break;

case 10:

run = 0;

printf("Exiting...\n");

break;

default:

printf("Invalid option! Try again.\n");

}

}

return 0;

}

Structure 2 ;

#include <stdio.h>

struct student {

char name[20];

int id;

char course[30];

char dep[30];

};

int main() {

int n;

printf("Enter student quantity: ");

scanf("%d",&n);

struct student student[n];

printf("\nEnter student Information: \n");

for(int i=0;i<n;i++){

printf("student ID: ");

scanf("%d",&student[i].id);

getchar();

printf("student Name: ");

fgets(student[i].name, sizeof(student[i].name), stdin);

printf("Course Name: ");

fgets(student[i].course, sizeof(student[i].course), stdin);

printf("Dep Name: ");

fgets(student[i].dep, sizeof(student[i].dep), stdin);

}

// printf("\nStudent Information: \n");

// for(int i=0;i<n;i++){

// printf("ID: %d\n",student[i].id);

// printf("Name: %s",student[i].name);

// printf("Course: %s",student[i].course);

// printf("Dep: %s",student[i].dep);

// printf("\n");

// }

printf("\n");

//serching by id

int x;

printf("Search ID:");

scanf("%d",&x);

while(x!=0){

for(int i=0;i<n;i++){

if(student[i].id==x){

printf("ID: %d\n",student[i].id);

printf("Name: %s",student[i].name);

printf("Course: %s",student[i].course);

printf("Dep: %s",student[i].dep);

printf("\n");

}

}

printf("Search ID:");

scanf("%d",&x);

}

//printf("Try programiz.pro");

return 0;

}