#include <stdio.h>

#include <string.h>

#include <ctype.h>

int isValidEmail(const char \*email) {

const char \*at = strchr(email, '@');

const char \*dot = strrchr(email, '.');

if (at != NULL && dot != NULL && at < dot) {

return 1;

}

return 0;

}

int isValidGender(const char \*gender) {

return (strcmp(gender, "male") == 0 || strcmp(gender, "female") == 0);

}

int isValidDate(int day, int month, int year) {

if (month < 1 || month > 12) {

return 0;

}

if (day < 1 || day > 31) {

return 0;

}

if (month == 2) {

if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0)) {

if (day > 29) return 0;

} else {

if (day > 28) return 0;

}

} else if (month == 4 || month == 6 || month == 9 || month == 11) {

if (day > 30) return 0;

}

return 1;

}

int isValidNationality(const char \*nationality) {

const char \*validNationalities[] = {

"indian",

"other than indian"

};

int size = sizeof(validNationalities) / sizeof(validNationalities[0]);

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

if (strcmp(nationality, validNationalities[i]) == 0) {

return 1;

}

}

return 0;

}

int main() {

char name[50];

char gender[10];

char nationality[30];

char email[100];

char destination[50];

char paymentMethod[10];

int day,month,year;

char phoneNumber[11];

char travelDates[9];

int travelers;

int tourPackageCode;

printf(" TOUR BOOKING FORM ");

printf("\nPlease fill the following information: ");

printf("\n PERSONAL INFORMATION ");

printf("\nFull Name: ");

fgets(name, 50, stdin);

name[strcspn(name, "\n")] = 0;

while (1) {

printf("Enter your gender (male/female): ");

scanf("%s", gender);

if (isValidGender(gender)) {

printf("Gender is valid: %s\n", gender);

break;

} else {

printf("Invalid gender. Please try again.\n");

}

}

while (1) {

printf("Enter your nationality: ");

scanf("%s", nationality);

if (isValidNationality(nationality)) {

printf("Nationality is valid: %s\n", nationality);

break;

} else {

printf("Invalid nationality. Please try again.\n");

}

}

while (1) {

printf("\nEnter 10 digit Phone number: ");

scanf("%10s", phoneNumber);

if (strlen(phoneNumber) == 10) {

int isValid = 1;

for (int i = 0; i < 10; i++) {

if (!isdigit(phoneNumber[i])) {

isValid = 0;

break;

}

}

if (isValid) {

printf("The phone number %s is valid.\n", phoneNumber);

break;

} else {

printf("The phone number must contain only digits. Please try again.\n");

}

} else {

printf("The phone number must be exactly 10 digits long. Please try again.\n");

}

}

while (1) {

printf("Enter your email ID: ");

scanf("%s", email);

if (isValidEmail(email)) {

printf("Email ID is valid: %s\n", email);

break;

} else {

printf("Invalid email ID. Please try again.\n");

}

}

printf("\n TRAVEL DETAILS ");

printf("\nDestination: ");

scanf("%s", destination);

while (1) {

printf("Enter preferred starting travel date (first enter date then month then year): ");

scanf("%d %d %d", &day, &month, &year);

if (isValidDate(day, month, year)) {

printf("Date is valid: %02d/%02d/%04d\n", day, month, year);

break;

} else {

printf("Invalid date. Please try again.\n");

}

}

printf("\nNumber of Travelers: ");

scanf("%d", &travelers);

printf("\n PAYMENT DETAILS ");

printf("\nPayment Methods:");

printf("\n1. Credit card\n2. Bank transfer");

while (1) {

printf("\nEnter choice: ");

scanf("%s", paymentMethod);

if (strcmp(paymentMethod, "1") == 0 || strcmp(paymentMethod, "2") == 0) {

break;

} else {

printf("Enter a valid answer (1 for Credit card, 2 for Bank transfer).\n");

}

}

printf("\n TOUR PACKAGE AGREEMENT ");

printf("\nEnter code for tour package(please visit website for tour package code: ");

scanf("%d", &tourPackageCode);

printf("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

printf("\n--- Booking Summary ---\n");

printf("Name: %s\n",name);

printf("Gender: %s\n", gender);

printf("Nationality: %s\n", nationality);

printf("Phone: %s\n", phoneNumber);

printf("Email: %s\n", email);

printf("Destination: %s\n", destination);

printf("Preferred Dates: %s\n", travelDates);

printf("Number of travelers: %d\n", travelers);

printf("Payment Method: %s\n", paymentMethod);

printf("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

return 0;

}