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Task 1:

#include <stdio.h>

// Function to sort array using Bubble Sort

void bubbleSort(int arr[], int n) {

int i, j, temp;

for (i = 0; i < n - 1; i++) {

for (j = 0; j < n - i - 1; j++) {

if (arr[j] > arr[j + 1]) {

temp = arr[j];

arr[j] = arr[j + 1];

arr[j + 1] = temp;

}

}

}

}

int main() {

int n;

// Input number of rickshaw pullers

printf("Enter the number of rickshaw pullers: ");

scanf("%d", &n);

int fares[n];

// Input fares

printf("Enter the fares: ");

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

scanf("%d", &fares[i]);

}

// Finding the minimum fare

int minFare = fares[0];

for (int i = 1; i < n; i++) {

if (fares[i] < minFare) {

minFare = fares[i];

}

}

// Sorting the fares

bubbleSort(fares, n);

// Printing the results

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

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

printf("%d ", fares[i]);

}

return 0;

}

Task 2:

#include <stdio.h>

// Function to check if all ratings are 5

int allFives(int ratings[], int n) {

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

if (ratings[i] != 5) {

return 0; // Found a rating that is not 5

}

}

return 1; // All ratings are 5

}

// Function to check if there are 5 consecutive 5-star ratings

int hasFiveConsecutiveFives(int ratings[], int n) {

int count = 0;

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

if (ratings[i] == 5) {

count++;

if (count == 5) {

return 1; // Found 5 consecutive 5-star ratings

}

} else {

count = 0; // Reset count if a different rating is found

}

}

return 0;

}

int main() {

int n;

// Input number of orders

printf("Enter the number of orders: ");

scanf("%d", &n);

int ratings[n];

// Input ratings

printf("Enter the ratings: ");

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

scanf("%d", &ratings[i]);

}

// Check if delivery hero is eligible (at least 10 orders)

if (n < 10) {

printf("NOT REWARDED\n");

return 0;

}

// Check if all ratings are 5 -> ELIMINATED

if (allFives(ratings, n)) {

printf("ELIMINATED\n");

return 0;

}

// Check if there are 5 consecutive 5-star ratings -> REWARDED

if (hasFiveConsecutiveFives(ratings, n)) {

printf("REWARDED\n");

} else {

printf("NOT REWARDED\n");

}

return 0;

}

Task 3:

#include <stdio.h>

// Function to sort the array in descending order (Selection Sort)

void sortDescending(int arr[], int n) {

int i, j, maxIdx, temp;

for (i = 0; i < n - 1; i++) {

maxIdx = i;

for (j = i + 1; j < n; j++) {

if (arr[j] > arr[maxIdx]) {

maxIdx = j;

}

}

// Swap elements

temp = arr[i];

arr[i] = arr[maxIdx];

arr[maxIdx] = temp;

}

}

// Function to find the magic number

int findMagicNumber(int arr[], int n, int magic) {

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

if (arr[i] == magic) {

return i + 1; // Page number (1-based index)

}

}

return -1; // Not found

}

int main() {

int n, magic;

// Input number of items

printf("Enter the number of items: ");

scanf("%d", &n);

int arr[n];

// Input the numbers

printf("Enter the numbers: ");

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

scanf("%d", &arr[i]);

}

// Input the magic number to search

printf("Enter the magic number: ");

scanf("%d", &magic);

// Sort array in descending order

sortDescending(arr, n);

// Find the magic number

int page = findMagicNumber(arr, n, magic);

// Print the result

if (page != -1) {

printf("MAGIC found at page no %d.\n", page);

} else {

printf("BETTER LUCK NEXT TIME!\n");

}

return 0;

}