**ASSIGNMENT-1**

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CSE(AI/ML)
**SUBJECT-C-PROGRAMMING LAB**

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QUES1:-1. Find The No. of Books Can Buy From 'N' Books List With Given Cost Description: Mr. Nivas gifted with Rs.m by his father and suggested to buy books. Then Mr. Nivas decided he want to spend complete amount to buy only books. He went to shop and found 'n' number of books and get confused which book or find any two books can buy with that amount. Example: 6 45 32 46 55 33 22 100 Pair found (45, 55) Explanation: return the costs of any two books if cost equals to that amount return -1 if not possible to buy any two books

```c
#include <stdio.h>
void findBooks(int n, int costs[], int totalAmount) {
  int pairFound = 0;

  for (int i = 0; i < n-1; i++) {
    for (int j = i+1; j < n; j++) {
      if (costs[i] + costs[j] == totalAmount) {
        printf("Pair found (%d, %d)\n", costs[i], costs[j]);
        pairFound = 1;
        return;
      }
    }
  }

  if (!pairFound) {
    printf("-1\n");
  }
}
int main() {
  int n;
  printf("Enter the number of books: ");
  scanf("%d", &n);

  int costs[n];
  printf("Enter the costs of the books: ");
  for (int i = 0; i < n; i++) {
    scanf("%d", &costs[i]);
```

```c
    }

    int totalAmount;
    printf("Enter the total amount: ");
    scanf("%d", &totalAmount);


    findBooks(n, costs, totalAmount);


    return 0;
}
```

QUES2:-Write the program for print largest three digits jumping numbers.

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


int isJumpingNumber(int num) {
    char numStr[4];
    sprintf(numStr, "%d", num);


    for (int i = 0; numStr[i + 1] != '\0'; i++) {
        if (abs(numStr[i] - numStr[i + 1]) != 1) {
            return 0;
        }
    }
    return 1;
}


int findLargestJumpingNumber() {
    for (int num = 999; num >= 100; num--) {
        if (isJumpingNumber(num)) {
            return num;
        }
```

```c
    }
    return -1;
}


int main() {
    int largestJumpingNumber = findLargestJumpingNumber();

    if (largestJumpingNumber != -1) {
        printf("The largest three-digit jumping number is: %d\n", largestJumpingNumber);
    } else {
        printf("No three-digit jumping number found.\n");
    }

    return 0;
}
```