DS Assignment-2

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Q. Add two, 16 bit numbers which are in Memory Locations and save the Result in other Memory locations.

**CODE:**

**#include <stdio.h>**

**#include <stdlib.h>**

**struct Lab {**

**int data;**

**struct Lab \*next;**

**} \*A, \*B, \*Mix;**

**void start(){**

**A = B = Mix = NULL;**

**}**

**void push(struct Lab \*\*start, int num) {**

**struct Lab\* newLab = (struct Lab\*) malloc(sizeof(struct Lab));**

**newLab->data = num;**

**newLab->next = \*start;**

**\*start = newLab;**

**printf("push num:%d\n", num);**

**}**

**struct Lab\* Append(struct Lab\* B, struct Lab\* A){**

**struct Lab \*temp;**

**temp = A ;**

**while (temp->next != NULL) {**

**temp = temp->next;**

**}**

**temp->next = B;**

**return A;**

**}**

**void thelist(struct Lab \*pointer) {**

**while (pointer != NULL) {**

**printf("%d", pointer->data);**

**pointer = pointer->next;**

**if(pointer != NULL)**

**printf(",");**

**}**

**}**

**int main() {**

**start();**

**push(&A, 12);**

**push(&A, -4);**

**push(&A, 22);**

**push(&A, 8);**

**push(&A, -3);**

**thelist(A);**

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

**push(&B, 3);**

**push(&B, 5);**

**push(&B, 59);**

**push(&B, 87);**

**push(&B, -99);**

**thelist(B);**

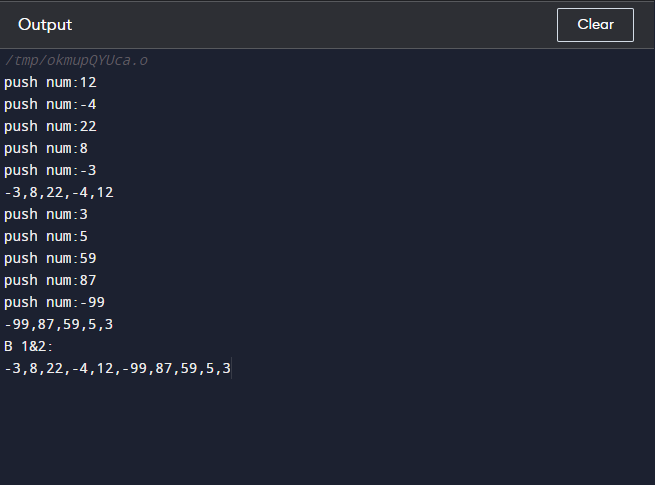
**Mix = Append(B, A);**

**printf("\nB 1&2:\n");**

**thelist(Mix);**

**return 0;**

**}**

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