ASSIGNMENT-1

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CSE

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QUES 1: Write a program to print all three digit adam numbers?

```c
#include <stdio.h>
int reverse(int n) {
    int rev = 0;
    while (n > 0) {
        rev = rev * 10 + n % 10;
        n /= 10;
    }
    return rev;
}
int isAdam(int n) {
    int n2 = n * n;
    int revn = reverse(n);
    int revn2 = reverse(n2);
    int revn2sqr = revn2 * revn2;
    return (n2 == revn2sqr);
}
int main() {
    int n;
    printf("Enter a number: ");
    scanf("%d", &n);
    if (isAdam(n)) {
        printf("%d is an Adam number.\n", n);
    } else {
        printf("%d is not an Adam number.\n", n);
    }
    return 0;
}
```

Ques 2: Write a program for finding duplicate elements in array?

Eg : Input Array : 112213431256   Output : 1 2 3

```c
#include <stdio.h>
void findDuplicates(int arr[], int size) {
    printf("Duplicate elements in the array are: ");
    for (int i = 0; i < size; i++) {
        for (int j = i + 1; j < size; j++) {
            if (arr[i] == arr[j]) {
                printf("%d ", arr[i]);
                break;
            }
        }
    }
    printf("\n");
}


int main() {
    int arr[] = {1, 1, 2, 2, 1, 3, 4, 3, 1, 2, 5, 6};
    int size = sizeof(arr) / sizeof(arr[0]);


    findDuplicates(arr, size);


    return 0;
```