C PROGRAMMING
ASSIGNMENT

By

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Semester-I ST

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Jammu, India

2023

Write a C program to print all three digit adam numbers

```c
#include <stdio.h>

int reverse(int num) {

    int rev = 0;

    while (num > 0) {

        rev = rev * 10 + num % 10;

        num /= 10;

    }

    return rev;

}

int isAdam(int num) {

    int square = num * num;

    int revSquare = reverse(square);

    int revNum = reverse(num);

    int revNumSquare = revNum * revNum;


    return square == revSquare && revNumSquare == reverse(revSquare);

}

int main() {

    printf("Three-digit Adam numbers are:\n");

    for (int i = 100; i <= 999; i++) {

        if (isAdam(i)) {

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

        }

    }


    return 0;

}
```

Write a program to find duplicate elements in an array

```c
#include <stdio.h>

int main() {

    int arr[] = {1, 2, 3, 4, 2, 7, 8, 8, 3};

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

    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; // To avoid printing the same duplicate multiple times

            }

        }

    }

    printf("\n");

    return 0;

}
```