

ASSIGNMENT-1

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CSE



Model Institute of Engineering & Technology (Autonomous)

(Permanently Affiliated to the University of Jammu, Accredited by NAAC with “A” Grade)

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Question 1 - Write a C program print all three digit Adam numbers.

CODE :-

```
C assignment-1_adam.c > main()
1  #include <stdio.h>
2  #include <math.h>
3
4  int reverse(int num)
5  {
6      int rev = 0;
7      while(num > 0)
8      {
9          rev = rev * 10 + num % 10;
10         num = num / 10;
11     }
12     return rev;
13 }
14
15 int is_Adam_Number(int num)
16 {
17     int sq = num * num;
18     int rev = reverse(num);
19     int rev_sq = rev * rev;
20     int rev_rev_sq = reverse(rev_sq);
21     if(sq == rev_rev_sq)
22         return 1;
23     else
24         return 0;
25 }
26 int main()
27 {
28     int num;
29     printf("Enter a number: ");
30     scanf("%d", &num);
31     if(is_Adam_Number(num))
32         printf("%d is an Adam number \n", num);
33     else
34         printf("%d is not an Adam number\n", num);
35     return 0;
36 }
```

OUTPUT :-

```
PS C:\Users\hp\Desktop\SIDDHARTH GUPTA> cd "c:\Users\hp\Desktop\SIDDHARTH GUPTA"
PS C:\Users\hp\Desktop\SIDDHARTH GUPTA> cd "c:\Users\hp\Desktop\SIDDHARTH GUPTA\" ; if ($?) { gcc assignment-1_adam.c -o assignment-1_adam } ; if ($?) { .\assignment-1_adam }
Enter a number: 113
113 is an Adam number
PS C:\Users\hp\Desktop\SIDDHARTH GUPTA>
```

Question 2 - Write the program for print all two digit happy number.

CODE :-

```
C assignment-1_happy.c > main()
1  #include <stdio.h>
2
3  int is_Happy_Number(int num){
4  int sum = 0, digit;
5  while
6  (num > 0){
7  digit = num % 10;
8  sum += digit * digit;
9  num /= 10;
10 }
11 if (sum == 1)
12 return 1;
13 else if (sum == 4)
14 return 0;
15 else
16 return is_Happy_Number(sum);
17 }
18 int main(){
19 int num;
20 printf("Two-digit happy numbers are: ");
21 for (num = 10; num < 100; num++){
22 if (is_Happy_Number(num))
23 printf("%d ", num);
24 }
25 return 0;
26 }
```

OUTPUT :-

```
PS C:\Users\hp\Desktop\SIDDHARTH GUPTA> cd "c:\Users\hp\Desktop\SIDDHARTH GUPTA\" ; if ($?) { gcc assignment-1_happy.c -o assignment-1_happy } ; if ($?) { .\assignment-1_happy }
Two-digit happy numbers are: 10 13 19 23 28 31 32 44 49 68 70 79 82 86 91 94 97
PS C:\Users\hp\Desktop\SIDDHARTH GUPTA>
```