

Exp no 1

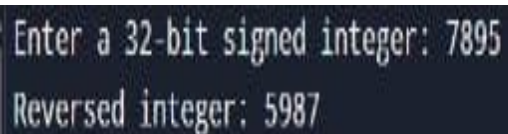
Code:

```
#include <stdio.h>
#include <limits.h>

int reverse(int x) {
    int reversed = 0;
    while (x != 0) {
        int digit = x % 10;
        x /= 10;
        if (reversed > INT_MAX / 10 || (reversed == INT_MAX / 10 && digit > 7))
            return 0;
        if (reversed < INT_MIN / 10 || (reversed == INT_MIN / 10 && digit < -8))
            return 0;
        reversed = reversed * 10 + digit;
    }
    return reversed;
}

int main() {
    int num;
    printf("Enter a 32-bit signed integer: ");
    scanf("%d", &num);
    printf("Reversed integer: %d\n", reverse(num));
    return 0;
}
```

Output:

A screenshot of a terminal window with a dark background. It shows the output of the program: "Enter a 32-bit signed integer: 7895" followed by "Reversed integer: 5987".

```
Enter a 32-bit signed integer: 7895
Reversed integer: 5987
```