**Theory:**

Additive inverse is the number that is added to a given number to make the sum zero. For example, if we take the number 3 and add -3 to it, the result is zero. Hence, the additive inverse of 3 is -3. We come across such situations in our daily life where we nullify the value of a quantity by taking its additive inverse.

The additive inverse of a number is its opposite number. If a number is added to its additive inverse, the sum of both the numbers becomes zero. The simple rule is to change the positive number to a negative number and vice versa. We know that, 7+ (-7)

=0. Thus -7 is the additive inverse of 7 and 7 is the additive inverse of -7.

|  |  |
| --- | --- |
| 0 | 0 |
| 1 | 7 |
| 2 | 6 |
| 3 | 5 |
| 4 | 4 |
| 5 | 3 |
| 6 | 2 |
| 7 | 1 |

Additive inverse modulo 8

**Programming Language: C**

**IDE: VS-Code**

**Code :**

#include <stdio.h>

int main()

{

int i, n, inv, m;

printf("Enter the modulo value:");

scanf("%d", &m);

printf("Additive Inverse\n");

for (i = 0; i < m; i++)

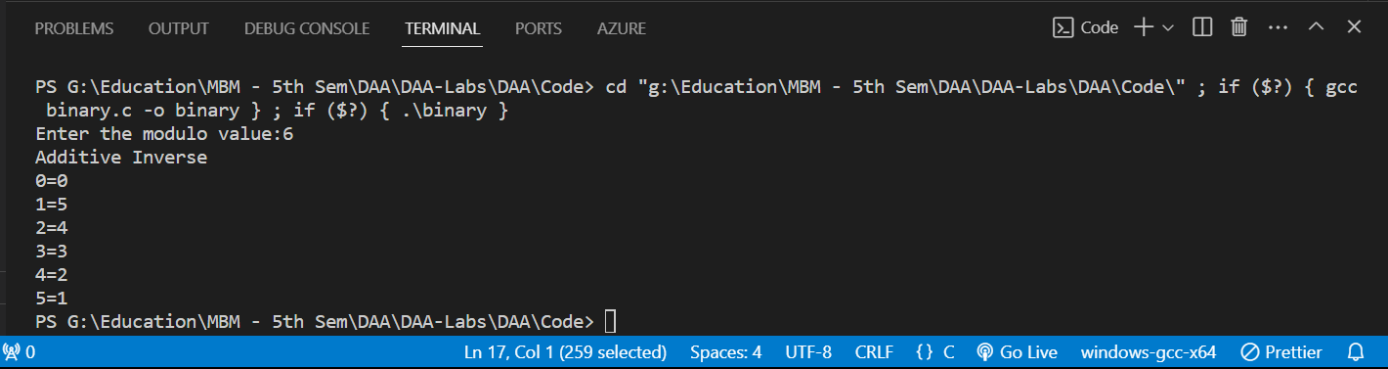
{

printf("%d=%d\n", i, inv = (m - i) % m);

}

}

**Output**

****