Week-04 Program-04

Write a C program to find power of a number using while loops. The base number (>0) and exponent (>=0) is taken from the test cases.

Sample Test Cases

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 0</td>
<td>The result is : 1</td>
</tr>
<tr>
<td>4 8</td>
<td>The result is : 65536</td>
</tr>
<tr>
<td>5 4</td>
<td>The result is : 625</td>
</tr>
<tr>
<td>7 3</td>
<td>The result is : 343</td>
</tr>
</tbody>
</table>

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Sample solutions (Provided by instructor)

```c
#include <stdio.h>
int main()
{
    int base, exponent;
    long int result;
    scanf("%d", &base); //The base value is taken from test case
    exponent = scanf("%d", &exponent);
    result = 1;
    int count = 1;
    while (count <= exponent) {
        result *= base;
        count ++;
    }
    printf("The result is : %d\n", result);
    return 0;
}
```
7. `scanf("%d", &exponent);` // The exponent value is taken from test case
8. `if (exponent == 0)`
9. `result = 1;`
10. `else`
11. `{`
12. `result = 1;`
13. `while (exponent != 0)`
14. `{`
15. `result = result * base;`
16. `-exponent;`
17. `}`
18. `}`
19. `printf("The result is : %ld\n", result);`
20. `return 0;`