C Equivalent code:

```
#Include <stdio.h>
Int main()
{
  int a,b,c,d;
  c = 1;
  d  = -1;
  b = a+d;
  while(b>-1)
  {
    c = c*a;
    a = a+d;
    b = b+d;
   }
return  0;
}
```

Output for the Factorial Implementation:

12
200 011F4051F6 201 211F7091F5 202 0B1F40A000 203 211F5011F4 204 051F6211F4
205 011F7051F6 206 211F7100C9 207 0000000000 500 0000000006 501 0000000001
502 FFFFFFFFFF 503 0000000000

In the Memory location 500,we will enter the value of a for which the factorial
is calculated.The output is stored in the memory location 501.

Note: The following input won't work for a = 0.
Output is highlighted in page 6

MBR = 11F4051F6 IBR = 51F6 MAR = 200
IR1 = 1
MAR1 = 1F4
AC = 6 MQ = 0 MBR = 6
IR2 = 5
MAR2 = 1F6
AC2 = 10000000005 MQ2 = 0 MBR2 = FFFFFFFFFF
MBR = 211F7091F5 IBR = 91F5 MAR = 201
IR1 = 21
MAR1 = 1F7
memory[503] = 10000000005
AC = 10000000005 MQ = 0 MBR = 10000000005
IR2 = 9

MAR2 = 1F5
AC2 = 10000000005 MQ2 = 1 MBR2 = 1
MBR = B1F40A000 IBR = A000 MAR = 202
IR1 = B
MAR1 = 1F4
AC = 0 MQ = 6 MBR = 6
IR2 = A
MAR2 = 0
AC2 = 6 MQ2 = 6 MBR2 = 6
MBR = 211F5011F4 IBR = 11F4 MAR = 203
IR1 = 21
MAR1 = 1F5
memory[501] = 6
AC = 6 MQ = 6 MBR = 6
IR2 = 1
MAR2 = 1F4
AC2 = 6 MQ2 = 6 MBR2 = 6
MBR = 51F6211F4 IBR = 211F4 MAR = 204
IR1 = 5
MAR1 = 1F6
AC = 10000000005 MQ = 6 MBR = FFFFFFFFFF
IR2 = 21
MAR2 = 1F4
memory[500] = 10000000005
AC2 = 10000000005 MQ2 = 6 MBR2 = 10000000005
MBR = 11F7051F6 IBR = 51F6 MAR = 205
IR1 = 1
MAR1 = 1F7
AC = 10000000005 MQ = 6 MBR = 10000000005
IR2 = 5
MAR2 = 1F6
AC2 = 20000000004 MQ2 = 6 MBR2 = FFFFFFFFFF
MBR = 211F7100C9 IBR = 100C9 MAR = 206
IR1 = 21
MAR1 = 1F7
memory[503] = 20000000004
AC = 20000000004 MQ = 6 MBR = 20000000004
IR2 = 10
MAR2 = C9
AC2 = 20000000004 MQ2 = 6 MBR2 = 20000000004
MBR = 211F7091F5 IBR = 91F5 MAR = 201
AC = 20000000004 MQ = 6 MBR = 211F7091F5
IR2 = 9
MAR2 = 1F5

AC2 = 20000000004 MQ2 = 6 MBR2 = 6
MBR = B1F40A000 IBR = A000 MAR = 202
IR1 = B
MAR1 = 1F4
AC = 0 MQ = 1E MBR = 10000000005
IR2 = A
MAR2 = 0
AC2 = 1E MQ2 = 1E MBR2 = 10000000005
MBR = 211F5011F4 IBR = 11F4 MAR = 203
IR1 = 21
MAR1 = 1F5
memory[501] = 1E
AC = 1E MQ = 1E MBR = 1E
IR2 = 1
MAR2 = 1F4
AC2 = 10000000005 MQ2 = 1E MBR2 = 10000000005
MBR = 51F6211F4 IBR = 211F4 MAR = 204
IR1 = 5
MAR1 = 1F6
AC = 20000000004 MQ = 1E MBR = FFFFFFFFFF
IR2 = 21
MAR2 = 1F4
memory[500] = 20000000004
AC2 = 20000000004 MQ2 = 1E MBR2 = 20000000004
MBR = 11F7051F6 IBR = 51F6 MAR = 205
IR1 = 1
MAR1 = 1F7
AC = 20000000004 MQ = 1E MBR = 20000000004
IR2 = 5
MAR2 = 1F6
AC2 = 30000000003 MQ2 = 1E MBR2 = FFFFFFFFFF
MBR = 211F7100C9 IBR = 100C9 MAR = 206
IR1 = 21
MAR1 = 1F7
memory[503] = 30000000003
AC = 30000000003 MQ = 1E MBR = 30000000003
IR2 = 10
MAR2 = C9
AC2 = 30000000003 MQ2 = 1E MBR2 = 30000000003
MBR = 211F7091F5 IBR = 91F5 MAR = 201
AC = 30000000003 MQ = 1E MBR = 211F7091F5
IR2 = 9
MAR2 = 1F5
AC2 = 30000000003 MQ2 = 1E MBR2 = 1E

MBR = B1F40A000 IBR = A000 MAR = 202
IR1 = B
MAR1 = 1F4
AC = 0 MQ = 78 MBR = 20000000004
IR2 = A
MAR2 = 0
AC2 = 78 MQ2 = 78 MBR2 = 20000000004
MBR = 211F5011F4 IBR = 11F4 MAR = 203
IR1 = 21
MAR1 = 1F5
memory[501] = 78
AC = 78 MQ = 78 MBR = 78
IR2 = 1
MAR2 = 1F4
AC2 = 20000000004 MQ2 = 78 MBR2 = 20000000004
MBR = 51F6211F4 IBR = 211F4 MAR = 204
IR1 = 5
MAR1 = 1F6
AC = 30000000003 MQ = 78 MBR = FFFFFFFFFF
IR2 = 21
MAR2 = 1F4
memory[500] = 30000000003
AC2 = 30000000003 MQ2 = 78 MBR2 = 30000000003
MBR = 11F7051F6 IBR = 51F6 MAR = 205
IR1 = 1
MAR1 = 1F7
AC = 30000000003 MQ = 78 MBR = 30000000003
IR2 = 5
MAR2 = 1F6
AC2 = 40000000002 MQ2 = 78 MBR2 = FFFFFFFFFF
MBR = 211F7100C9 IBR = 100C9 MAR = 206
IR1 = 21
MAR1 = 1F7
memory[503] = 40000000002
AC = 40000000002 MQ = 78 MBR = 40000000002
IR2 = 10
MAR2 = C9
AC2 = 40000000002 MQ2 = 78 MBR2 = 40000000002
MBR = 211F7091F5 IBR = 91F5 MAR = 201
AC = 40000000002 MQ = 78 MBR = 211F7091F5
IR2 = 9
MAR2 = 1F5
AC2 = 40000000002 MQ2 = 78 MBR2 = 78
MBR = B1F40A000 IBR = A000 MAR = 202

IR1 = B
MAR1 = 1F4
AC = 0 MQ = 168 MBR = 30000000003
IR2 = A
MAR2 = 0
AC2 = 168 MQ2 = 168 MBR2 = 30000000003
MBR = 211F5011F4 IBR = 11F4 MAR = 203
IR1 = 21
MAR1 = 1F5
memory[501] = 168
AC = 168 MQ = 168 MBR = 168
IR2 = 1
MAR2 = 1F4
AC2 = 30000000003 MQ2 = 168 MBR2 = 30000000003
MBR = 51F6211F4 IBR = 211F4 MAR = 204
IR1 = 5
MAR1 = 1F6
AC = 40000000002 MQ = 168 MBR = FFFFFFFFFF
IR2 = 21
MAR2 = 1F4
memory[500] = 40000000002
AC2 = 40000000002 MQ2 = 168 MBR2 = 40000000002
MBR = 11F7051F6 IBR = 51F6 MAR = 205
IR1 = 1
MAR1 = 1F7
AC = 40000000002 MQ = 168 MBR = 40000000002
IR2 = 5
MAR2 = 1F6
AC2 = 50000000001 MQ2 = 168 MBR2 = FFFFFFFFFF
MBR = 211F7100C9 IBR = 100C9 MAR = 206
IR1 = 21
MAR1 = 1F7
memory[503] = 50000000001
AC = 50000000001 MQ = 168 MBR = 50000000001
IR2 = 10
MAR2 = C9
AC2 = 50000000001 MQ2 = 168 MBR2 = 50000000001
MBR = 211F7091F5 IBR = 91F5 MAR = 201
AC = 50000000001 MQ = 168 MBR = 211F7091F5
IR2 = 9
MAR2 = 1F5
AC2 = 50000000001 MQ2 = 168 MBR2 = 168
MBR = B1F40A000 IBR = A000 MAR = 202
IR1 = B

MAR1 = 1F4
AC = 0 MQ = 2D0 MBR = 40000000002
IR2 = A
MAR2 = 0
AC2 = 2D0 MQ2 = 2D0 MBR2 = 40000000002
MBR = 211F5011F4 IBR = 11F4 MAR = 203
IR1 = 21
MAR1 = 1F5
memory[501] = 2D0
AC = 2D0 MQ = 2D0 MBR = 2D0
IR2 = 1
MAR2 = 1F4
AC2 = 40000000002 MQ2 = 2D0 MBR2 = 40000000002
MBR = 51F6211F4 IBR = 211F4 MAR = 204
IR1 = 5
MAR1 = 1F6
AC = 50000000001 MQ = 2D0 MBR = FFFFFFFFFF
IR2 = 21
MAR2 = 1F4
memory[500] = 50000000001
AC2 = 50000000001 MQ2 = 2D0 MBR2 = 50000000001
MBR = 11F7051F6 IBR = 51F6 MAR = 205
IR1 = 1
MAR1 = 1F7
AC = 50000000001 MQ = 2D0 MBR = 50000000001
IR2 = 5
MAR2 = 1F6
AC2 = 60000000000 MQ2 = 2D0 MBR2 = FFFFFFFFFF
MBR = 211F7100C9 IBR = 100C9 MAR = 206
IR1 = 21
MAR1 = 1F7
memory[503] = 60000000000
AC = 60000000000 MQ = 2D0 MBR = 60000000000
IR2 = 10
MAR2 = C9
AC2 = 60000000000 MQ2 = 2D0 MBR2 = 60000000000
MBR = 211F7091F5 IBR = 91F5 MAR = 201
AC = 60000000000 MQ = 2D0 MBR = 211F7091F5
IR2 = 9
MAR2 = 1F5
AC2 = 60000000000 MQ2 = 2D0 MBR2 = 2D0
MBR = B1F40A000 IBR = A000 MAR = 202
IR1 = B
MAR1 = 1F4

AC = 0 MQ = 2D0 MBR = 50000000001
IR2 = A
MAR2 = 0
AC2 = 2D0 MQ2 = 2D0 MBR2 = 50000000001
MBR = 211F5011F4 IBR = 11F4 MAR = 203
IR1 = 21
MAR1 = 1F5
memory[501] = 2D0 FINAL OUTPUT IN HEXADECIMAL FORM.
AC = 2D0 MQ = 2D0 MBR = 2D0
IR2 = 1
MAR2 = 1F4
AC2 = 50000000001 MQ2 = 2D0 MBR2 = 50000000001
MBR = 51F6211F4 IBR = 211F4 MAR = 204
IR1 = 5
MAR1 = 1F6
AC = 60000000000 MQ = 2D0 MBR = FFFFFFFFFF
IR2 = 21
MAR2 = 1F4
memory[500] = 60000000000
AC2 = 60000000000 MQ2 = 2D0 MBR2 = 60000000000
MBR = 11F7051F6 IBR = 51F6 MAR = 205
IR1 = 1
MAR1 = 1F7
AC = 60000000000 MQ = 2D0 MBR = 60000000000
IR2 = 5
MAR2 = 1F6
AC2 = 6FFFFFFFFFF MQ2 = 2D0 MBR2 = FFFFFFFFFF
MBR = 211F7100C9 IBR = 100C9 MAR = 206
IR1 = 21
MAR1 = 1F7
memory[503] = 6FFFFFFFFF
AC = 6FFFFFFFFF MQ = 2D0 MBR = 6FFFFFFFFF
IR2 = 10
MAR2 = C9
AC2 = 6FFFFFFFFF MQ2 = 2D0 MBR2 = 6FFFFFFFFF
MBR = 0 IBR = 0 MAR = 207