Whitespace

Subject: "Whitespace Wonderland - A Silent Ode to Christmas"

Lore:
Embark on a coding odyssey where silence speaks volumes in "Whitespace Wonderland," a unique project that explores the fascinating world of Whitespace programming. In this coding escapade, participants will venture into the realms of space, tabs, and line breaks, crafting a silent symphony that whispers the spirit of Christmas through the cryptic language of Whitespace.

Description:
For this exercice you will use the
whitespace online interpreter to output “merry christmas !!!”.

Keep in mind that in this language, you’ll use only 3 things :

Whitespaces, Linefeed and tabulations.

I’ll let use see the official documentation here, and I’ll give you a little tips below to start :

To get a letter, you’ll need to use his ASCII. So the first thing to do is getting it’s ASCII.
Let’s try to do this with the letter “a” (it’s ASCII is 97).
We’ll use stack manipulation to get the ASCII number so we’ll start by a space :

```
[Space]
```

Then when we will find the number, we will push it at the top of the stack so we need to use a space as the command :

```
[Space][Space]
```

Now we can start our calculation, we’ll start at 0 and we’ll go with positive numbers by adding a space :

```
[Space][Space]  [Space]
```

Then for now we'll try to go to 97 using only two types of operation, we can :

- Multiply by two our current number, using a space
- Multiply by two then add 1 to the current number, using a tabulation.

since the calculation from 0 to 97 is :

- previous number = 0 :

  (0 x 2) + 1 = 1
- previous number = 1 :

  (1 x 2) + 1 = 3
- previous number = 3 :

  3 x 2 = 6
- previous number = 6 :

  6 x 2 = 12
- previous number = 12 :

  12 x 2 = 24
- previous number = 24 :

  24 x 2 = 48
- previous number = 48 :

  (48 x 2) + 1 = 97

So in the end the calculation from 0 will be :
[x 2 + 1] [x 2 + 1] [x 2] [x 2] [x 2] [x 2] [x 2 + 1]
Translated to :
[Tab] [Tab] [Space] [Space] [Space] [Space] [Tab]

So we can add it to our code :

```
[Space][Space]  [Space][Tab][Tab][Space][Space][Space][Space]
```

Now that we've pushed our 97 to the top of the stack, we can closeour stack manipulation by adding a linefeed at the end of the command :

```
[Space][Space]  [Space][Tab][Tab][Space][Space][Space][Space]
```

Now we want to print the top of the stack, we'll use a I/O (input/output) for that so we'll start by a tab then a linefeed :

```
[Tab][Linefeed]
```

Then we'll add 2 space to indicate that we want to output the top of the stack :

```
[Tab][Linefeed]  [Space][Space]
```

The entirety of the program will look like this :

```
[Space][Space]  [Space][Tab][Tab][Space][Space][Space][Space]
[Tab][Linefeed]  [Space][Space]
```

Now that you know how to print 'a' in whitespace you're ready for the exercice, hope you'll do well !!!