Project 120

DP EDUCATION

Coding School

micro:bit

120

Start here

❖ First drag an on start block
❖ Add a variable with count 0 in that block.
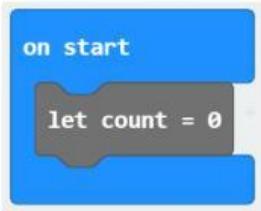
❖ When a sound was heard, the value of the count variable increased by 1. Then the value assigned to that variable should be show. For that, prepare the block as follows.
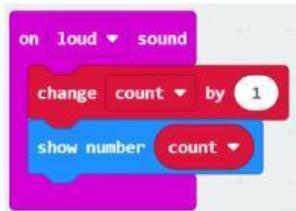
❖ Let's prepare the code to play the happy birthday song when button A is clicked.
Set the tone related to the happy birthday song as below and prepare the block.

- • Adjust the tone to middle D and the beat to ½.
- • Adjust the tone to middle D and the beat to ½.
- • Adjust the tone to middle E and the beat to 1.
- • Adjust the tone to middle D and the beat to 1.
- • Adjust the tone to middle G and the beat to 1.
- • Adjust the tone to middle F# and the beat to 2.
- • Adjust the tone to middle D and the beat to ½.
- • Adjust the tone to middle D and the beat to ½.
- • Adjust the tone to middle E and the beat to 1.
- • Adjust the tone to middle D and the beat to 1.
- • Adjust the tone to middle A and the beat to 1.
- • Adjust the tone to middle G and the beat to 1.
- • Adjust the tone to middle D and the beat to ½.
- • Adjust the tone to middle D and the beat to ½.
- • Set the tone to High D and the beat to 1.
- • Adjust the tone to middle B and the beat to 1.
- • Adjust the tone to middle G and the beat to 1.
- • Adjust the tone to middle F# and the beat to 1.

- • Adjust the tone to high C and the beat to 1.
- • Adjust the tone to high C and the beat to 1.
- • Set the tone to middle B and the beat to 1.
- • Adjust the tone to middle G and the beat to 1.
- • Adjust the tone to middle A and the beat to 1.
- • Adjust the tone to middle G and the beat to 1.

The relevant code can be prepared as follows.

```
on button A ▼ pressed
    play tone Middle D for 1/2 ▼ beat until done ▼
    play tone Middle D for 1/2 ▼ beat until done ▼
    play tone Middle E for 1 ▼ beat until done ▼
    play tone Middle D for 1 ▼ beat until done ▼
    play tone Middle G for 1 ▼ beat until done ▼
    play tone Middle F# for 2 ▼ beat until done ▼
    play tone Middle D for 1/2 ▼ beat until done ▼
    play tone Middle D for 1/2 ▼ beat until done ▼
    play tone Middle E for 1 ▼ beat until done ▼
    play tone Middle D for 1 ▼ beat until done ▼
    play tone Middle A for 1 ▼ beat until done ▼
    play tone Middle G for 1 ▼ beat until done ▼
    play tone Middle D for 1/2 ▼ beat until done ▼
    play tone Middle D for 1/2 ▼ beat until done ▼
    play tone High D for 1 ▼ beat until done ▼
```

Choose the answers to the following questions..

1. How should the code be prepared so that this icon appears when the value assigned to the count variable is equal to 2?
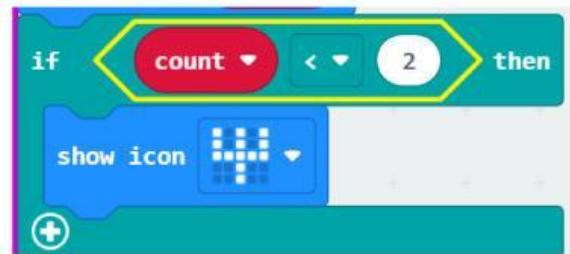
2. Select the code block set to be applied to show the value only if the value received for the Count variable is an even number.
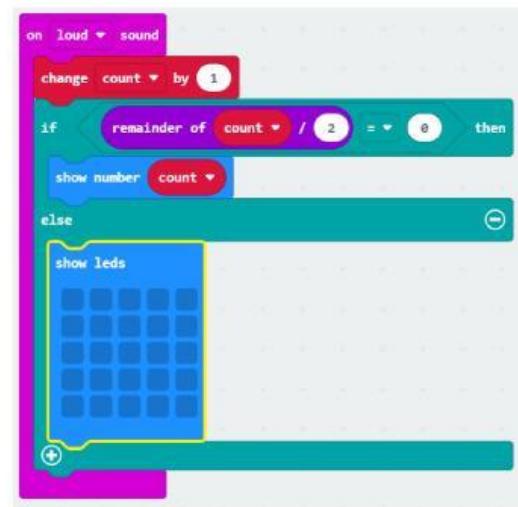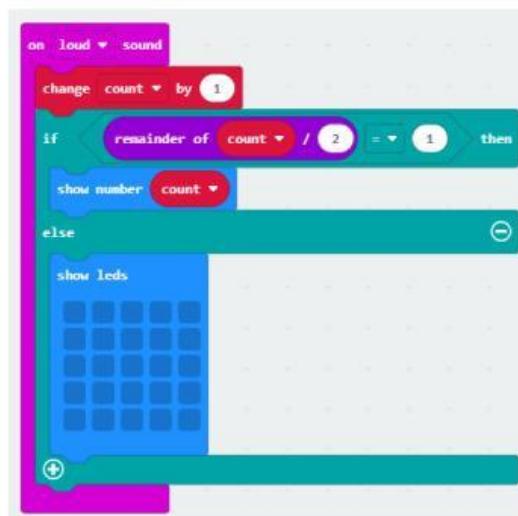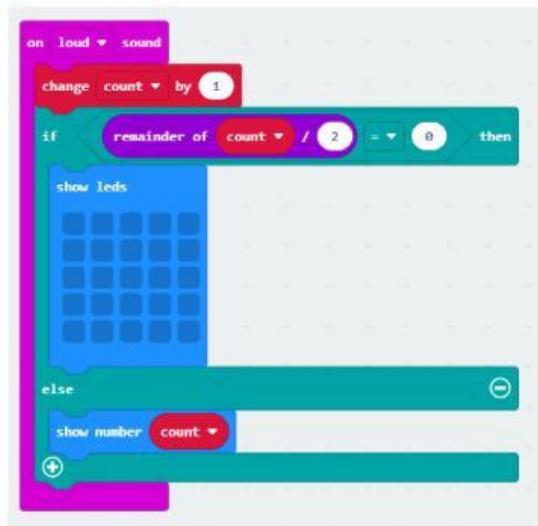
3. Select the code set to be applied to show the multiple of 5 in the value assigned to the count variable.
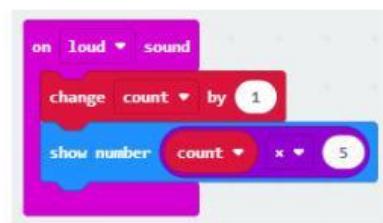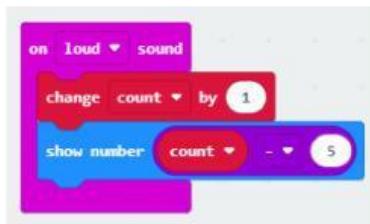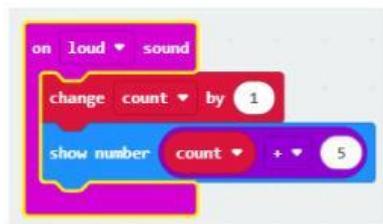
4. How to set code for volume 100 when clicked on B button?