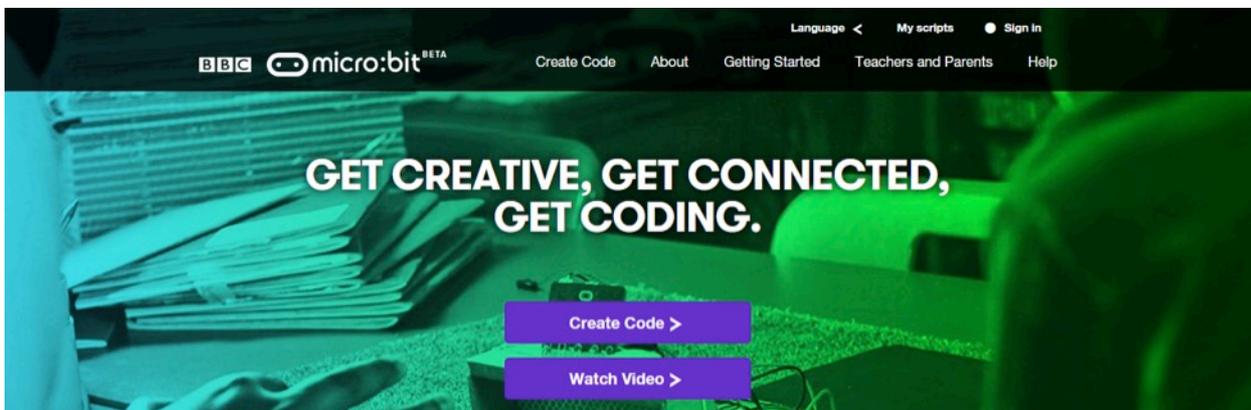


## Construct your own fortune teller game

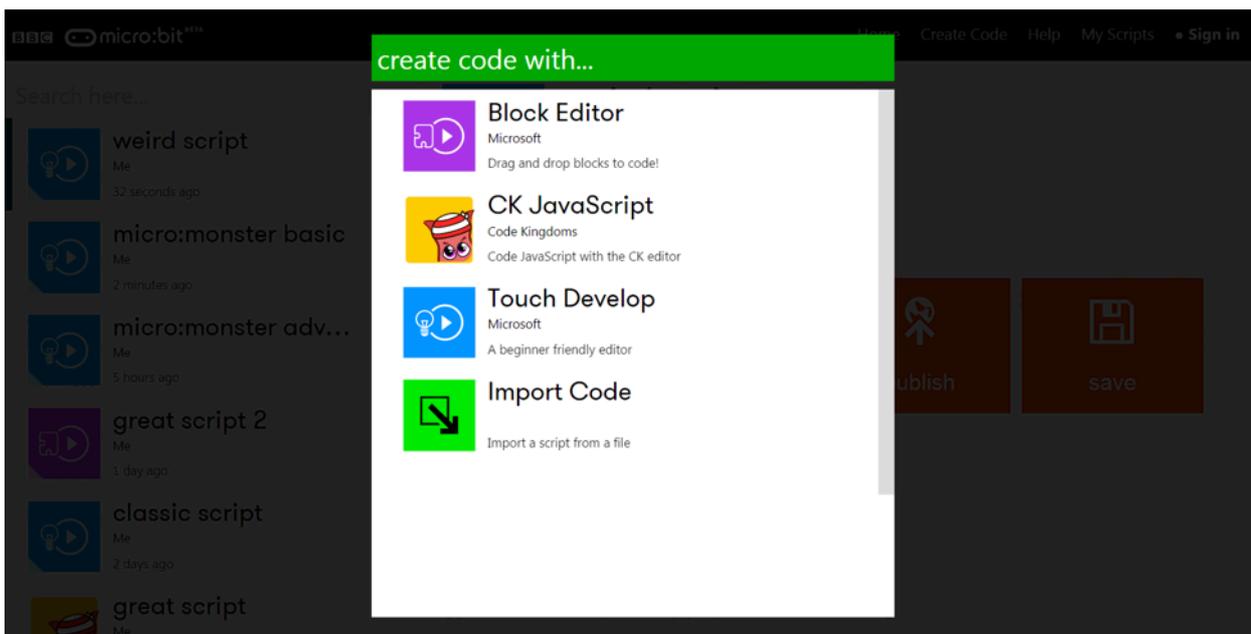
### Step 1: Import the code

Download the hex file from our Live Lessons website.

Firstly, select **'My scripts'** on the top navigation on the micro:bit website ([www.microbit.co.uk](http://www.microbit.co.uk)), and choose **'Create code'**.



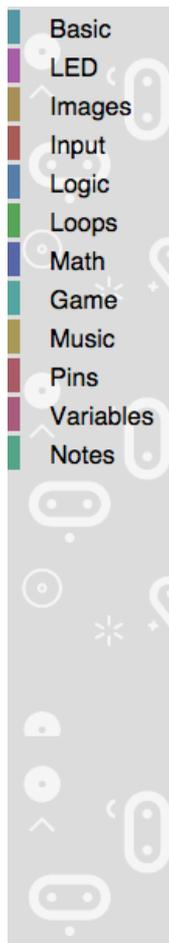
Choose **'Import Code'** and upload the hex file that you've downloaded from the Live Lessons website.



The script for your fortune teller game should now appear in your code window.

Hit **'run'** to see it in action on the simulator, or plug in your micro:bit, hit **'compile'** and drag your hex file onto your micro:bit to try out your fortune teller game.

## Step 2: Understanding the code



```
forever
do
  if shake = false
  do
    show leds
      0 1 2 3 4
      0  ✓  ✓  ✓  ✓
      1  ✓  ✓  ✓  ✓
      2  ✓  ✓  ✓  ✓
      3  ✓  ✓  ✓  ✓
      4  ✓  ✓  ✓  ✓
```

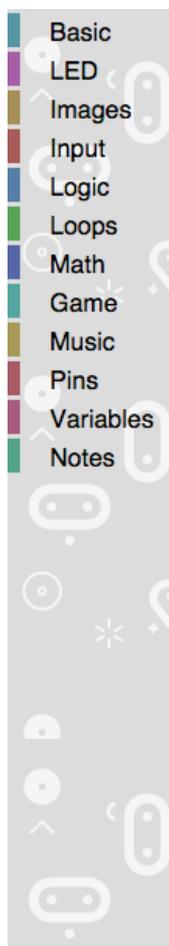
```
on shake
do
  set shake to true
  set eightball to pick random 0 to 4
  if eightball = 0
  do
    show string " YES "
  if eightball = 1
  do
    show string " NO "
  if eightball = 2
  do
    show string " ASK LATER "
  if eightball = 3
  do
    show string " ASK MUM "
  if eightball = 4
  do
    show string " MAYBE "
  set shake to false
```

**Before you ask a question...**

This block of code indicates what you see right at the start.

We've introduced a **variable** - **shake** - and a **conditional statement** that says that IF the variable **shake** is **false**, then the LEDs light up in the shape of a crystal ball.

We've also placed this in a **forever loop**, which means that the program will keep checking the conditional statement forever, rather than just checking it once.



```
forever
do
  if shake = false
  do
    show leds
```

```
on shake
do
  set shake to true
  set eightball to pick random 0 to 4
  if eightball = 0
  do
    show string " YES "
  if eightball = 1
  do
    show string " NO "
  if eightball = 2
  do
    show string " ASK LATER "
  if eightball = 3
  do
    show string " ASK MUM "
  if eightball = 4
  do
    show string " MAYBE "
  set shake to false
```

**When you shake your micro:bit**

This block of code indicates what happens when you shake your micro:bit.

Here we've said that **on shake**, the variable **shake** becomes **true**.

We've also introduced another variable **eightball**, and said set the variable to pick a random value from 0 to 4.

- Basic
- LED
- Images
- Input
- Logic
- Loops
- Math
- Game
- Music
- Pins
- Variables
- Notes

```

    forever
    do
        if shake = false
            do
                show leds
                0 1 2 3 4
                0 0 0 0 0
                1 0 0 0 0
                2 0 0 0 0
                3 0 0 0 0
                4 0 0 0 0
            
```

```

    on shake
    do
        set shake to true
        set eightball to pick random 0 to 4
        if eightball = 0
            do
                show string " YES "
            
```

**What your fortune teller says...**

This block of code indicates what is shown on the micro:bit screen when the **eightball** variable returns a value.

For each of the values (0 to 4), we've indicated that a **string** or message is shown. For example, if the **eightball** variable returns the random value 0, then the message "YES" is displayed on the screen.

### Step 3: Changing the code

You can adapt your fortune teller game by changing the replies that you get when you shake your micro:bit. Simply click within the quotation marks ( " ") for each string and type in the message that you'd like showing.

```

    show string " I DON'T UNDERSTAND THE QUESTION "
    
```

You can also change the number of replies that you could get. You do so by changing the number of values that the **eightball** variable brings up.

```

    set eightball to pick random 0 to 6
    
```

You then need to add more IF statements after the final one, to correspond to the available values.

```

    if eightball = 5
    do
        show string " NEW TEXT "
    
```

You'll find the block elements you need for this in the **Logic**, **Variables**, **Math** and **Basic** sections.

## **Test, play and show us what you've done**

Now that you've made your very own fortune teller game, click '**run**' to test it on the simulator and '**compile**' to see it working on your micro:bit.

Click '**export**' to save off your code and send it to us at [live.lessons@bbc.co.uk](mailto:live.lessons@bbc.co.uk). You could see your codes featured on our **micro:bit Live Lesson** in February.