Javascript

In-class exercise 8

1. W3C school (https://www.w3schools.com/)
2. Loop: while, do…while, for

    Counter-controlled vs. sentinel-controlled repetition

3. break vs. continue

    break: terminate the entire loop
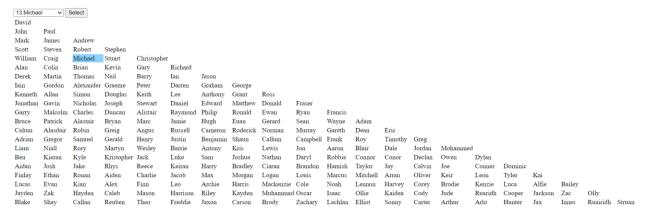   continue: skip one round of a loop

    Try: What would the browser display?

```
<script>
   for ( var count = 1; count <= 10; count++ ) {
              if ( count == 5 )
                       break;
              document.write( count+"<br/>" );
   }
</script>


//How about replace the "break" with "continue"?
```

(0) Import the js file I provided. In the js file, one string is initialized and it should contain over 200 the most common male baby names in the UK.

(1) Split the string into an Array with all the names.

(2) Create a dropdown list contains all the names and give each name a sequential number.

(3) While pressing the select button, the page should create a pyramid with all the names, and the selected name should be highlighted with any color of your choice.

```
[13.Michael ▼] [Select]
David
John      Paul
Mark      James     Andrew
Scott     Steven    Robert    Stephen
William   Craig     Michael   Stuart    Christopher
Alan      Colin     Brian     Kevin     Gary      Richard
Derek     Martin    Thomas    Neil      Barry     Ian       Jason
Iain      Gordon    Alexander Graeme    Peter     Darren    Graham    George
Kenneth   Allan     Simon     Douglas   Keith     Lee       Anthony   Grant     Ross
Jonathan  Gavin     Nicholas  Joseph    Stewart   Daniel    Edward    Matthew   Donald    Fraser
Garry     Malcolm   Charles   Duncan    Alistair  Raymond   Philip    Ronald    Ewan      Ryan      Francis
Bruce     Patrick   Alastair  Bryan     Marc      Jamie     Hugh      Euan      Gerard    Sean      Wayne     Adam
Calum     Alasdair  Robin     Greig     Angus     Russell   Cameron   Roderick  Norman    Murray    Gareth    Dean      Eric
Adrian    Gregor    Samuel    Gerald    Henry     Justin    Benjamin  Shaun     Callum    Campbell  Frank     Roy       Timothy   Greg
Liam      Niall     Rory      Martyn    Wesley    Barrie    Antony    Kris      Lewis     Jon       Aaron     Blair     Dale      Jordan    Mohammed
Ben       Kieran    Kyle      Kristopher Jack     Luke      Sam       Joshua    Nathan    Daryl     Robbie    Connor    Conor     Declan    Owen      Dylan
Aidan     Josh      Jake      Rhys      Reece     Keiran    Harry     Bradley   Ciaran    Brandon   Hamish    Taylor    Jay       Calvin    Joe       Conner    Dominic
Finlay    Ethan     Ronan     Aiden     Charlie   Jacob     Max       Morgan    Logan     Louis     Marcus    Mitchell  Arran     Oliver    Keir      Leon      Tyler     Kai
Lucas     Evan      Kian      Alex      Finn      Leo       Archie    Harris    Mackenzie Cole      Noah      Lennon    Harvey    Corey     Brodie    Kenzie    Luca      Alfie     Bailey
Jayden    Zak       Hayden    Caleb     Mason     Harrison  Riley     Kayden    Muhammad  Oscar     Isaac     Ollie     Kaiden    Cody      Jude      Ruaridh   Cooper    Jackson   Zac       Olly
Blake     Shay      Callan    Reuben    Theo      Freddie   Jaxon     Carson    Brody     Zachary   Lachlan   Elliot    Sonny     Carter    Arthur    Arlo      Hunter    Jax       Innes     Ruairidh  Struan
```

(4) Based on the current locale, add a line of the time information above the pyramid. Make sure the time will be updated while any updates are made on the page.

(5) Add an "I feel lucky!" button. While pressing the button, one of the names in the pyramid will randomly be highlighted.

(6) Add a "Let's Disco!" button. While pressing the button, one of the names in the pyramid will randomly be highlighted every 1 second. (Hint: setInterval) And change the text on the "Let's Disco!" button to "Stop the music!".

(7) While pressing the "Stop the music!" button, the "Disco" should stop, and the text on the "Stop the music!" button should be changed back to "Let's Disco!".

```
[15.Christopher ▼] [Select] [I feel lucky!] [Let's Disco!]
2020/10/29 上午11:24:53
David
John      Paul
Mark      James     Andrew
Scott     Steven    Robert    Stephen
William   Craig     Michael   Stuart    Christopher
Alan      Colin     Brian     Kevin     Gary      Richard
Derek     Martin    Thomas    Neil      Barry     Ian       Jason
Iain      Gordon    Alexander Graeme    Peter     Darren    Graham    George
Kenneth   Allan     Simon     Douglas   Keith     Lee       Anthony   Grant     Ross
Jonathan  Gavin     Nicholas  Joseph    Stewart   Daniel    Edward    Matthew   Donald    Fraser
Garry     Malcolm   Charles   Duncan    Alistair  Raymond   Philip    Ronald    Ewan      Ryan      Francis
Bruce     Patrick   Alastair  Bryan     Marc      Jamie     Hugh      Euan      Gerard    Sean      Wayne     Adam
Calum     Alasdair  Robin     Greig     Angus     Russell   Cameron   Roderick  Norman    Murray    Gareth    Dean      Eric
Adrian    Gregor    Samuel    Gerald    Henry     Justin    Benjamin  Shaun     Callum    Campbell  Frank     Roy       Timothy   Greg
Liam      Niall     Rory      Martyn    Wesley    Barrie    Antony    Kris      Lewis     Jon       Aaron     Blair     Dale      Jordan    Mohammed
Ben       Kieran    Kyle      Kristopher Jack     Luke      Sam       Joshua    Nathan    Daryl     Robbie    Connor    Conor     Declan    Owen      Dylan
Aidan     Josh      Jake      Rhys      Reece     Keiran    Harry     Bradley   Ciaran    Brandon   Hamish    Taylor    Jay       Calvin    Joe       Conner    Dominic
Finlay    Ethan     Ronan     Aiden     Charlie   Jacob     Max       Morgan    Logan     Louis     Marcus    Mitchell  Arran     Oliver    Keir      Leon      Tyler     Kai
Lucas     Evan      Kian      Alex      Finn      Leo       Archie    Harris    Mackenzie Cole      Noah      Lennon    Harvey    Corey     Brodie    Kenzie    Luca      Alfie     Bailey
Jayden    Zak       Hayden    Caleb     Mason     Harrison  Riley     Kayden    Muhammad  Oscar     Isaac     Ollie     Kaiden    Cody      Jude      Ruaridh   Cooper    Jackson   Zac       Olly
Blake     Shay      Callan    Reuben    Theo      Freddie   Jaxon     Carson    Brody     Zachary   Lachlan   Elliot    Sonny     Carter    Arthur    Arlo      Hunter    Jax       Innes     Ruairidh  Struan
```