

CoderDojo

25 November 2017

Github and Animations

25- November

- Goal: Continue work on programs, look at animation in JS
- Today, we'll
 - Look at timers and animation
 - Put code into Github repositories

Download

- Reminder: Do you have VSCode installed?
 - If not, install from: <https://code.visualstudio.com/download>
- Do you have github installed?
 - Install git software from <https://git-scm.com/download/win>
 - Install, take all the defaults.
 - Sign up with github.com – you'll need to supply a valid e-mail address
- These slides can be downloaded from <https://github.com/tralee-coder-doj/AdvancedNinjas/CoderDojo25Nov.pdf>

Download today's samples

- Navigate to <https://github.com/tralee-coder-dojo/AdvancedNinjas>
- Download Timers and extract to a folder like Timers
- Open the folder in VSCode and bring up Clock.html

Timers

- Timers are functions called at specific times. Javascript provides 2
- setTimeout function
 - `Var t = setTimeout(myFunction, 10);`
 - Will only call myFunction **once**, 10 milliseconds from now
- setInterval function
 - `Var v = setInterval(myOtherFunction, 25);`
 - Calls myOtherFunction **every** 25 milliseconds

Timers

- clearInterval function
 - clearInterval(v);
 - Clears a repeating timer

Clock program

- Clock program uses `setTimeout` to set the alert for 'now' plus a few seconds (random between 0 and 3 seconds)
- `setInterval` is used to count milliseconds for the clock
- The string shown for elapsed time uses both division, and modulus:
 - `Math.floor(elapsedTime / 1000) + ":" + Math.floor(elapsedTime % 1000);`
- `Math.floor` is used to truncate to nearest whole numbers

Sliding Box program

- Red box moves to the lower right corner
- The function 'StartMoving' is called when the start button is clicked
 - This starts a 15 millisecond timer that invokes the function 'frame'
- The function 'frame' does the interesting stuff
 - Increments the variable 'pos'
 - Pos is then used to set the upper left corner of the box
 - When pos reaches 350, the box stops moving
- The function 'scoreUpdate' increases the score when you click the red box
- You can keep clicking the start button and generate confusing results

Better Sliding Box program

- Box moves a bit randomly
- Confusing results from clicking button eliminated
- Program now:
 - Tracks whether the box has started moving or not
 - Chooses whether to move to a random position and if so, where, using random numbers
 - Keeps track of whether the game is started or stopped in the 'start' button

Putting code into Github

- Navigate to the repositories created last week, or share
 - Github.com 'my repositories' button

The screenshot shows the GitHub homepage for user tcdjmek. At the top, there's a header with 'GitHub, Inc. [US] | https://github.com' and a breadcrumb 'Dictionary and Language tcdjmek/MattsCode:'. Below the header, there's a navigation bar with 'Browse activity' and 'Discover repositories'. A user profile dropdown for 'tcdjmek' is visible. On the right, there's a notification box about 'Introducing Team discussions'. Below that, a large notification box states 'You've been added to the tralee-coder-dojo organization!' with a list of tips for new members. To the right of this, there's a section titled 'Repositories you contribute to' showing two repositories: 'tralee-coder-dojo/AdvancedNinjas' and 'tralee-coder-dojo/class-content'. At the bottom, there's a 'Your repositories' section with a 'New repository' button.

GitHub, Inc. [US] | <https://github.com>

Dictionary and Language tcdjmek/MattsCode: |

tcdjmek ▾

Browse activity Discover repositories

Introducing Team discussions ✕
Why comment when you can discuss? Now there's more space to talk through your projects with team discussions.
[View 5 new broadcasts](#)

You've been added to the tralee-coder-dojo organization! ✕
Here are some quick tips for a first-time organization member.

- Use the switch context button in the upper left corner of this page to switch between your personal context (tcdjmek) and organizations you are a member of.

defunkt ▾

Repositories you contribute to 2

	tralee-coder-dojo/AdvancedNinjas	0 ★
	tralee-coder-dojo/class-content	0 ★

Your repositories 2 [New repository](#)

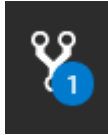
Put your code into Github

- Navigate to your window containing your code
- Right-click open git bash
- In the git bash window:
 - `git config - -global user.email "email_I_used_for_github"` # dashdashglobal is one word
 - `git remote add origin "urlFromGitHubWhereMyRepositoryLives"`

Put your code into Github

- If you have a file in the repository from last week:
 - In the git bash window:
 - `git init`
 - `git pull "urlFromGitHubWhereMyRepositoryLives"`
 - `git add .`
 - `git commit -m "putting my files in Github"`
 - `git push origin master`
- If you have NOTHING in your repository:
 - In the git bash window:
 - `git init`
 - `git add .`
 - `git commit -m "my first commit!"`
 - `git push origin master`

Adding and sharing code in Github

- Once you've created your application in VSCode:
 - You will see the 'source control' icon light up 
 - Click the check mark, enter a comment
 - Commit the changes
 - From the source control '...':
 - Push to(...)
 - Push to the repo you created
 - See the files there in github (log back in, navigate to your repos)

Teams

- Turducken
- Difficult
- ThreeD
- FlyingDucks