Lesson 2.4
3.7.2020
Making Tech Demos

DAILY OBJECTIVE

In this lesson, students will attempt to create a technical example that demonstrates one aspect of their proposed project. Students should aim to create examples that demonstrate their interactions, without using the actual AI systems yet!

MATERIALS

Educator
- None

Students
- Note taking materials
- Personal Computers

PREP

Educators should use their previously completed brainstorming and good, better, best exercises and attempt to create a short interactive demo of their own, prior to running the lesson. These technical demos should not be extravagant and simply demonstrate a specific interaction of your application.

DEFINITIONS

1. **Tech Demo:** A rough prototype or technical example that is an incomplete version of a product intended to be made in the future.

2. **Wizard of Oz Experiment:** A research experiment or prototype where a person interacts with a computer system that they believe is autonomous, but is operated or partially operated by an unseen human being. These experiments are a great way of testing if an interaction works prior to spending a long time developing an interaction with full capabilities!

3. **Scope Creep:** A phenomenon which occurs during development of a product where additional features and enhancements, not in the scope of the initial deliverable, are added, causing the project's development to quickly out pace the time and resources initially devoted to it.

Section 1: Quick Revisions

Objective	Students will quickly revise their notes from the previous lesson with the intent to create a prototype of one of the interactions they've storyboarded.
Duration	5 Minutes
Class Style	Students should be prepared to review their storyboards individually. Computers should be away (unless storyboards were completed digitally), and storyboard documents should be out.
Materials	Note Taking Materials, Completed "Storyboard" activity worksheets

1.1 Reviewing Storyboards

Students should review storyboards individually and add some final notes prior to creating their technical demos. Students will choose either their high-level or low-level storyboard to prototype.

Students should complete the following activity:

A	5 Minutes	**Storyboard Revisions** Consider the following questions while revising your storyboards: 1. **What comments were made** during peer review that I should address and fix? 2. **What should I add or remove** from my storyboard to create a more understandable prototype? 3. **What can I do to simulate complex API interactions?** a. I.e. can I pretend an AI analysis occurred, prior to adding in the actual analysis to test my interaction? 4. **Which storyboard should I prototype today?**

Section 2: Making Technical Demos

Objective	Students will use their revised storyboards to create technical demos.
Duration	35-40 Minutes
Class Style	Students should have their computers opened to editor.wickeditor.com and be ready to create interactive projects.
Materials	Personal Computers, Revised storyboarding worksheets.

2.1 Creating Demos

For the remainder of the lesson, students should be focused on creating technical demos that can accurately prototype user interactions!

1. **Choosing Storyboards:** Students should choose which storyboard(s) they'll prototype today. Classrooms with additional time can prototype additional interactions, or simply further prototype and refine the one they've started with.

2. **Opening Wick Editor:** Once chosen, students should head to editor.wickeditor.com and use Wick Editor to create their prototypes.

3. **Creating Prototypes:** Using illustrations, images, animations and interactive Clips and Buttons, students should start to prototype their interactions based on their storyboards.
   a. **Making Wizard of Oz demos**: These demonstrations should not include actual AI interactions yet using the Azure Cognitive Services systems. The demos should provide a good sense of how the AI will work, by either using simpler interactions or interactions aided by a human.

      For example, A user inputs a sentence into a text box and presses "analyze". The project designer then manually sends the user to a frame that corresponds to the emotion of that text. Don't add all of the code just yet!

b. **Avoid "Scope Creep!".** Remind students that they should keep their demos within the limits of the refined storyboards and project descriptions they've created!

4. **Testing as we develop:** Students should frequently test their prototypes throughout this session by pressing the play button and interacting with them themselves. Don't wait until the end of class to test a project only to realize something early on in the development process is broken, making it much more difficult to fix!

5. **Saving work:** Students should frequently save their work to their computers, or LMS!

2.2 Reviewing Wick Editor Commands and Interactions
Review the Wick Editor commands and process guides from week 1!

Common Wick Editor Commands List

Command	Description
stop()	Stops the playhead of the animation until some input causes the project to play again or move to another frame.
gotoNextFrame()	Moves the playhead ahead to the next frame.
gotoPrevFrame()	Moves the playhead backward one frame to the previous frame.
gotoAndStop(i)	Moves the playhead to frame i and stops the timeline on that frame.

Common Process Guides
Review the process guides from lesson 1.4.

1. **"How to Create a Clip"**
2. **"How to Enter and Exit a Clip".**
3. **"Using Code to Control a Clip's Timeline"**

Common Misconceptions

Below are some common misconceptions that may appear in discussion around today's content.

1. "Real Programmers Would Just Use the APIs."

Some students may not understand why we're making Technical Prototypes and Wizard of Oz demos instead of just working directly with the AI systems. Creating lightweight prototypes that demonstrate concepts is a common way for teams to gauge whether or not an interaction, or overall project concept, is effective. This helps save huge amounts of development resources, like time and cost, before moving into full production.

COMMON PITFALLS

1. Not testing projects as they are created.

Students may work throughout the class period without performing semi-frequent tests of their work. This can put them in a position where they have added large amounts of code, interactions, and visual elements that may not function properly when played. It's relatively easy to fix a single issue as it comes up, but relatively difficult to pinpoint which problems should be addressed first in this case. Suggest frequent testing to your students!

SUCCESS CRITERIA

These success criteria are a simple way to ensure students are on track. They are designed to help educators guide conversations and example development between each day's content.

Discussion	Exploration	Application
(Optional) When asked, students are able to describe how their projects will utilize the AI Systems in the future.	Students have thoroughly revised their initial concepts, and effectively visually developed those concepts in a Wick Editor project.	Students have created an interactive prototype that utilizes some automatic interactions, and some Wizard of Oz interactions that effectively demonstrates their revised concepts.