Lesson 1.3

3.7.2020

AI in Wick Editor Projects

DAILY OBJECTIVE

Students will experiment with example projects that integrate AI systems with a Wick Editor project. Students will discuss and evaluate the projects while considering assumptions of how these projects work.

Section 1: Break into Teams

For today's lesson, teams will explore several examples within the Wick Editor that use Microsoft Azure Cognitive Services. Your team members will take on these roles, and rotate the roles for each example.

Role: Driver	Role: Navigator	Role: Technical Writer
Responsible for interacting with the AI examples, and making changes at the navigator's request.	Responsible for providing suggestions and ideas to the Technical Writer and Driver. This person should be primarily responsible for considering how we can alter the examples to produce new results.	Record notes and questions for the group about the example. This person should record notes on how the examples reacted to certain inputs, subtle changes in the output of the examples, and any questions the group has.

In groups of 2, the Navigator and Technical Writer roles should be performed by the same person!

Section 2: Exploring Interactive Examples

Next, we'll be working with 3 examples and answering questions on our Worksheets.

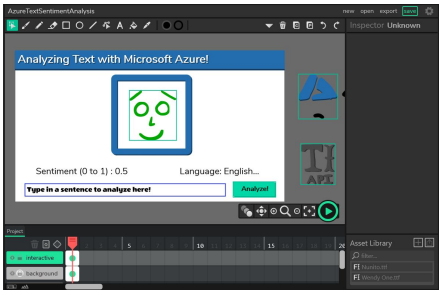
WARN	The following projects must have a "student code" added to them to work! Follow the "adding student codes" guide at the end of this lesson plan for instructions on how to do this.

2.1 Text Analysis Example

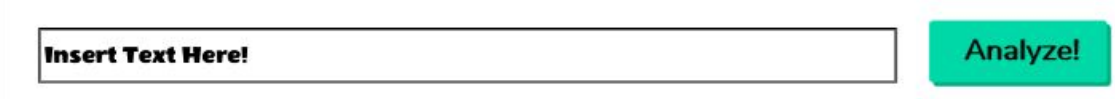
This example creates a simple interaction between Wick Editor and the Microsoft Azure Cognitive Services' Text Analytics API. Complete the Activity Worksheet for this example.

Direct Link	aka.ms/WE_TextAnalysisDemo_direct
Download Link	aka.ms/WE_TextAnalysisDemo

How it Works

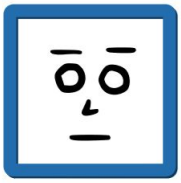


1. Set up your student code and press the play button!
2. While the project is playing, insert a sentence into the text input.



3. Next, hit the "analyze" button.

4. After a few seconds, you should receive three responses.
   a. A sentiment value from 0 to 1.
   b. The language the AI believes the Text is in.
   c. A visual response linked to the outcome of the sentiment analysis.



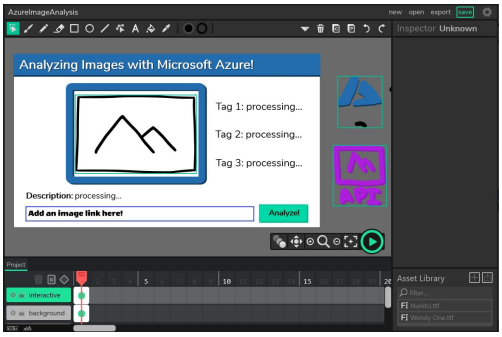
2.2 Image Analysis Example

This example shows how Wick Editor projects can interact with the Azure Cognitive Services Computer Vision API to analyze Images. Complete the Activity Worksheet for this example.

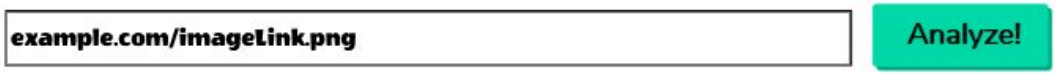
Direct Link	aka.ms/WE_ImageAnalysisDemo_direct
Download Link	aka.ms/WE_ImageAnalysisDemo

How it Works

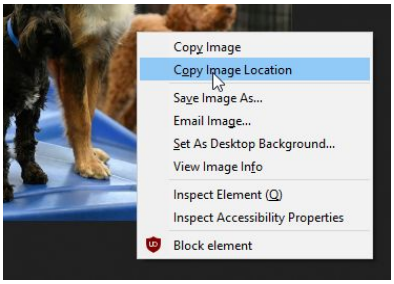
1. Set up your student code and press the play button!



2. When playing, you can input an image URL into the text input and have the image that corresponds to that URL analyzed.



These image URLS can be found by searching for an image and using the right-click "Copy Image Location" or "Copy Image Address" Options in any major image search tool.



3. Once the link is entered, students can hit the "analyze" button.

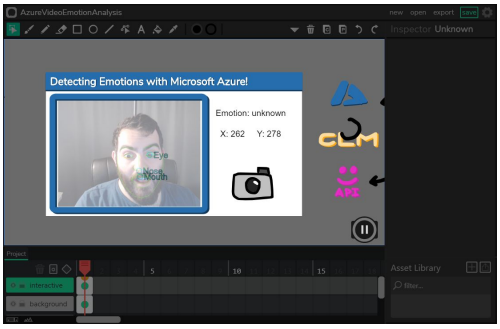
4. In a few seconds, when the Azure API can send its response, you'll see a series of tags related to the image, and a computer generated description!

2.3 Video Emotion Analysis Example

This example shows how Wick Editor projects can interact with the Azure Cognitive Services' Computer Vision FACE API to analyze Images. Complete the Activity Worksheet for this example.

Direct Link	aka.ms/WE_VideoAnalysisDemo_direct
Download Link	aka.ms/WE_VideoAnalysisDemo

How it Works



1. Set up your student code and press the play button!

2. While playing the project, students should see their face on the left hand side of the project.

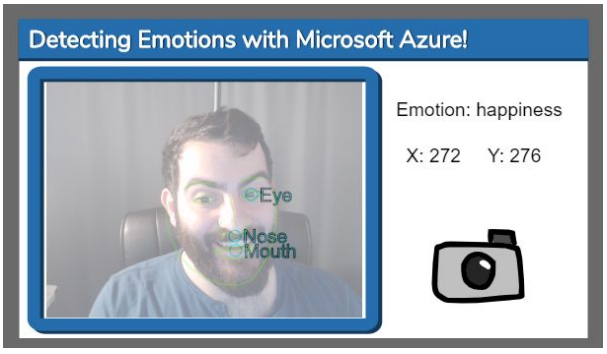
3. In real-time, students will see the position of the center of the face recorded as X/Y coordinates on the right of the canvas. An overlay should also be present on their face.

   Emotion: unknown

   X: 262 Y: 278

4. While making an expression, students should hit the "take photo" button.

5. After a few seconds, students will see the AI's result, guessing their emotion!



ACTIVITY WORKSHEET

Text Analysis Demo Questions

Answer the following questions about the Text Analysis Demo!

1. **What are we viewing? What is this project doing?**

2. **How do you think the system works?**
   What information do you believe the example is considering before sending back a result?

3. **What types of outputs does it produce?**

4. **What inputs produced the best results?**
   Why do you think these worked so well? Were there any similar inputs that produced different results?

5. What products in the world are using this technology?
   What products could potentially use this technology in the future?

ACTIVITY WORKSHEET

Image Analysis Demo Questions

Answer the following questions about the Image Analysis Demo!

1. **What are we viewing? What is this project doing?**

2. **How do you think the system works?**
   What information do you believe the example is considering before sending back a result?

3. **What types of outputs does it produce?**

4. **What inputs produced the best results?**
   Why do you think these worked so well? Were there any similar inputs that produced different results?

5. What products in the world are using this technology?
   What products could potentially use this technology in the future?

ACTIVITY WORKSHEET

Video Emotion Analysis Demo Questions

Answer the following questions about the Video Emotion Analysis Demo!

1. **What are we viewing? What is this project doing?**

2. **How do you think the system works?**
   What information do you believe the example is considering before sending back a result?

3. **What types of outputs does it produce?**

4. **What inputs produced the best results?**
   Why do you think these worked so well? Were there any similar inputs that produced different results? What environments does the camera work best in?

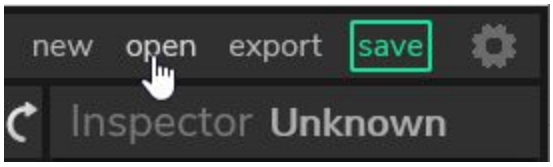
5. What products in the world are using this technology?
   What products could potentially use this technology in the future?

PROCESS GUIDE

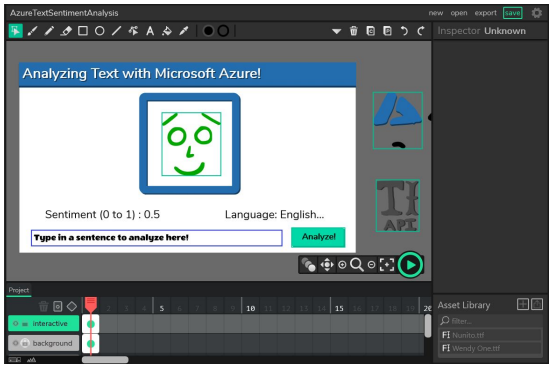
Adding Student Codes Guide

Use these instructions to add your student code to a Microsoft Azure Wick Editor project.

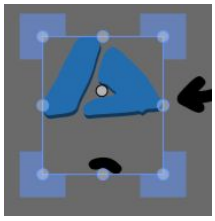
1. If downloading the project, open the project using the “open” button in the top right of the Wick Editor.



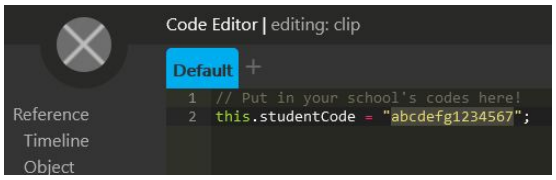
Once open, you should see the project on the canvas.



2. Select the “azure” object using the cursor tool.



3. Open the object’s “default” script to add in your student code.



4. Once added, you should be able to play your project normally!