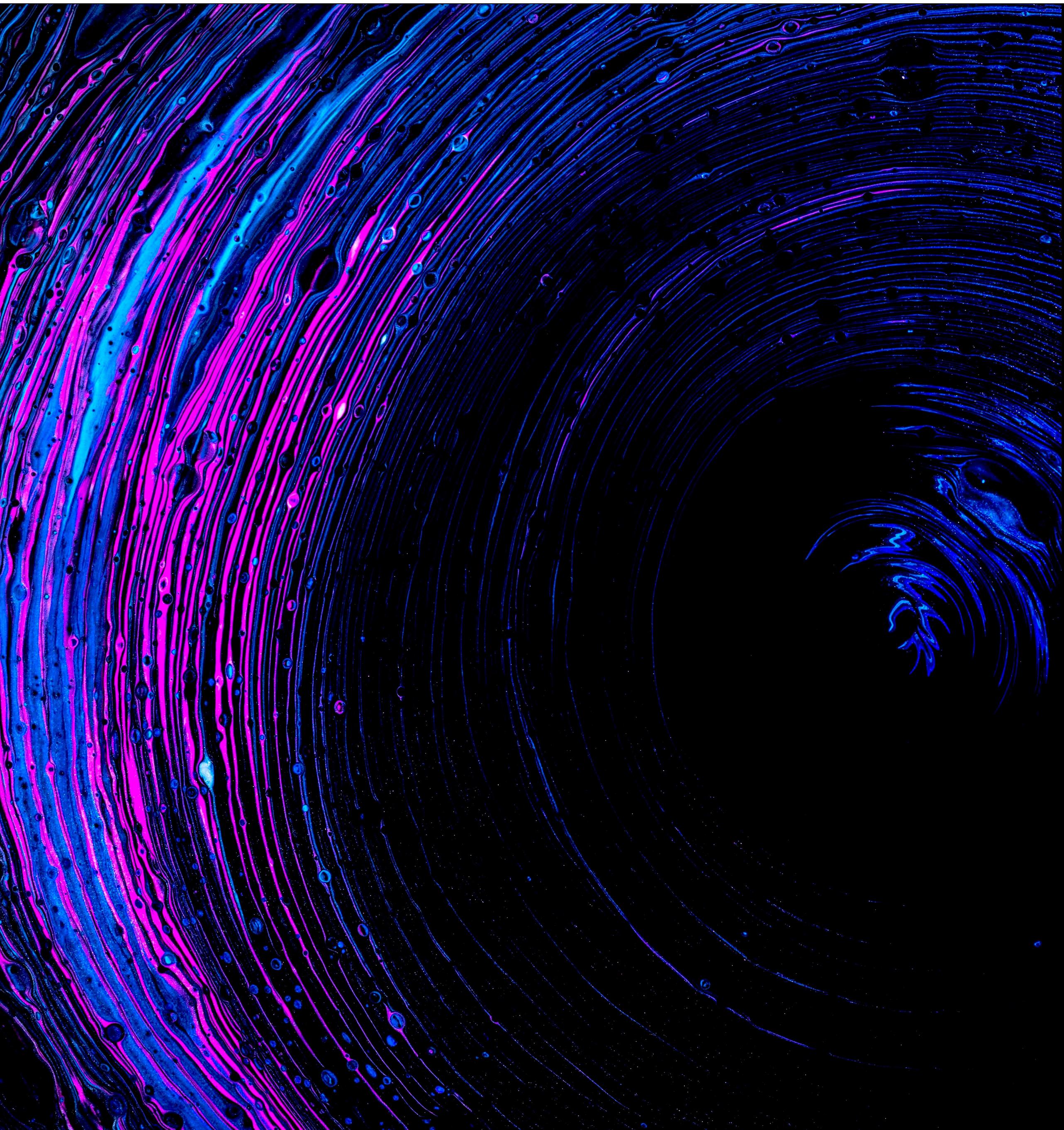
A glowing disco ball with colorful patterns, including yellow, blue, green, and red, set against a dark background.

MGT 3745 B: integration w/ javascript



AGENDA

September 28, 2023
(76 days = 10 weeks, 6 days)

- 9/26 replit review
- more axios, introducing fetch
- chrome JSON, postman
- upcoming assignments

Key Terms

Coding Syntax

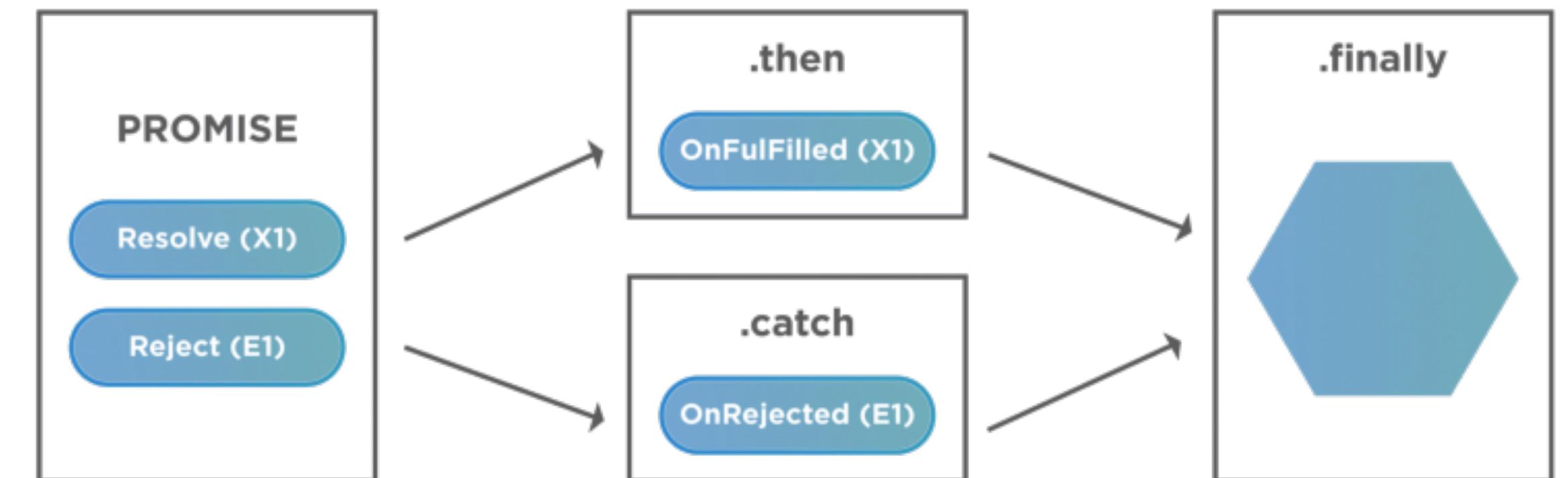
async(hronous) programming - enables code to start tasks that take time while still running and responding to other events (async) vs. waiting until that task has finished (sync)

promise - object represents the eventual completion / failure of async operations

then() - method schedules callback for handling successful promise completion

catch() - method schedules callbacks for handling failed / error promise composition

```
let myPromise = new Promise(function(myResolve, myReject) {
  // "Producing Code" (May take some time)
  myResolve(); // when successful
  myReject(); // when error
});
// "Consuming Code" (Must wait for a fulfilled Promise)
myPromise.then(
  function(value) { /* code if successful */ }
)
.catch(
  function(error) { /* code if some error */ }
)
```



Source: <https://developer.mozilla.org/en-US/docs/Learn/JavaScript/Asynchronous/Introducing>

Source: <https://www.w3schools.com/js/js.promise.asp>

Source: https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Promise/catch

Image Source: <https://javascript.plainenglish.io/promise-in-javascript-with-all-the-methods-b7357196a57e>

Key Terms

Coding Syntax

addEventListener() - runs code when events occur via async programming (callback)

getElementById() - method which returns an element with specified id attribute OR null if element does not exist

value - gets/sets the value attribute of the element (e.g., element.getElementById("").value)

typeof - returns the data type of JavaScript variable / value (e.g., string, number, boolean, object, function, undefined)

isNaN - method asserts if value (e.g., string, number, boolean, object, etc.) is NaN (Not-a-Number)

Source: https://www.w3schools.com/jsref/met_element_addeventlistener.asp

Source: https://www.w3schools.com/jsref/met_document_getelementbyid.asp

Source: https://www.w3schools.com/tags/att_value.asp

Source: https://www.w3schools.com/js/js_typeof.asp

Source: https://www.w3schools.com/jsref/jsref_isnan.asp



Key Terms

Coding Syntax

getAttribute() - gets the value to an element attribute (element.getAttribute("class");)

setAttribute() - sets the value to an element attribute (element.setAttribute(name,value);)

innerHTML - sets or returns the HTML content of an element

innerText- sets or returns the text content of an element

fetch() - client-side (e.g., HTML) fetching a resource from a server & returns a promise which returns a response object (resolve/error)

encodeURIComponent() - function encodes a URI (uniform resource identifier - urls are URIs) by replacing each instance of certain characters with UTF-8 encoded values.

use cases: input which may have spaces (e.g., city names) and/or may be used in a url as query parameters

Source: https://www.w3schools.com/jsref/met_element_getattribute.asp

Source: https://www.w3schools.com/jsref/met_element_setattribute.asp

Source: https://www.w3schools.com/jsref/prop_html_innerhtml.asp

Source: https://www.w3schools.com/jsref/prop_node_innertext.asp

Source: https://www.w3schools.com/jsref/api_fetch.asp

Source: https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/encodeURIComponent

Key Terms

Problem Solving Methodology

1. Create a **problem statement**
2. Use computational thinking as the process which **produces an algorithm/pseudocode** (plain language description of steps) which generates the desired condition or result
3. Convert algorithms/pseudocode, or **encode**, into JavaScript

In-class exercise #1: <https://replit.com/@johnmcswain/MGT3745Fall2023Sept28A>

In-class exercise #2: <https://replit.com/@johnmcswain/MGT3745Fall2023Sept28B>

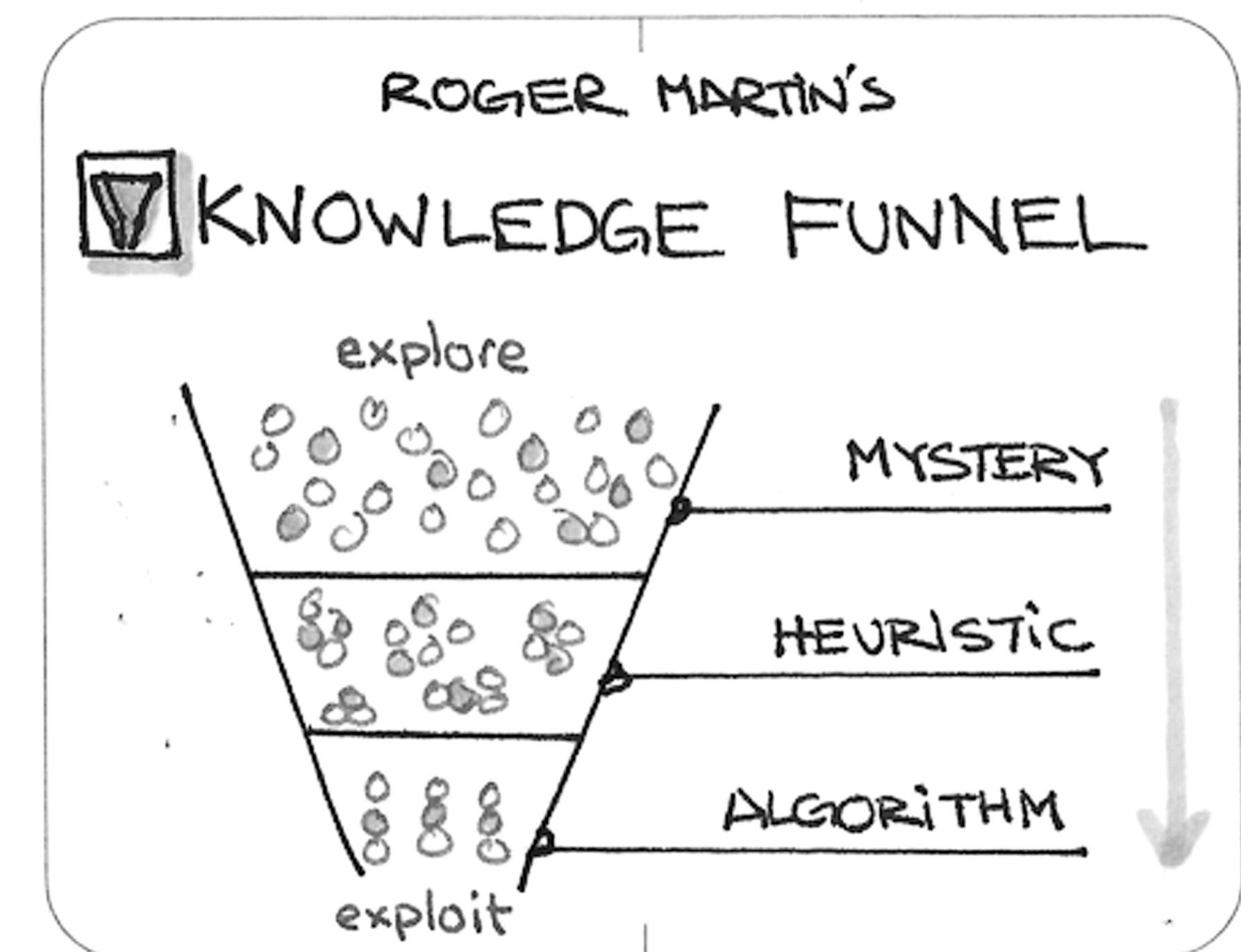
Supplemental Async: <https://replit.com/@johnmcswain/MGT3745BFall20023AsyncSupplemental>

Source: <https://en.wikipedia.org/wiki/Pseudocode>

Source: <https://rogerlmartin.com/lets-read/the-design-of-business>

sketchplanations.com

145





Assignments

Homework 4 Solved

[https://docs.google.com/spreadsheets/d/
1Wwo00w4FK10zFh5zGj8vI2sNmqgDIIC8IVRFCsHwU64/edit#gid=1347388723](https://docs.google.com/spreadsheets/d/1Wwo00w4FK10zFh5zGj8vI2sNmqgDIIC8IVRFCsHwU64/edit#gid=1347388723)

Homework 5

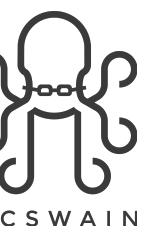
<https://gatech.instructure.com/courses/347044/assignments/1521950>

Week 6 Discussion

https://gatech.instructure.com/courses/347044/discussion_topics/1575317

Homework 6

<https://gatech.instructure.com/courses/347044/assignments/1525166>



Assignments

References

Install [Postman](#)

Fork **TODAY's** Replits

Readings

[JavaScript Promise Syntax](#)

[JavaScript Fetch Syntax](#)

[APIs Aren't Just for Tech Companies](#)

How do/can APIs create new value for companies?

What is ecosystem thinking?

[Amazon AWS: What is an API?](#)

What are the benefits of REST APIs?

What are the differences between public, private, partner, and composite APIs?

[Mozilla Developer Network: What is a URL?](#) (all)

Questions?