Quorum For Teachers

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Gina Fugate

- B.A. English Education

- M.Ed. Master of Education, Visual Disabilities
  - Includes instruction in Braille codes (Literary & Nemeth)

- Currently updating Assistive Technology Certificate via UMass Boston

- Teaching experience includes Project PAVE (Vanderbilt Eye Institute), itinerant (TVI, COMS, AT) in Kentucky, and 7 years at the Maryland Schools for the Blind

- CSTA Equity Fellowship 2021-2022

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Quorum For Teachers

➢ Recognize the benefits of the Quorum Programming Language and IDE (Integrated Development Environment) online and offline a.k.a "Why Quorum?"

➢ Identify the resources (Learning tracks, AP CSP materials, etc.) to get started with using the Quorum Programming Language
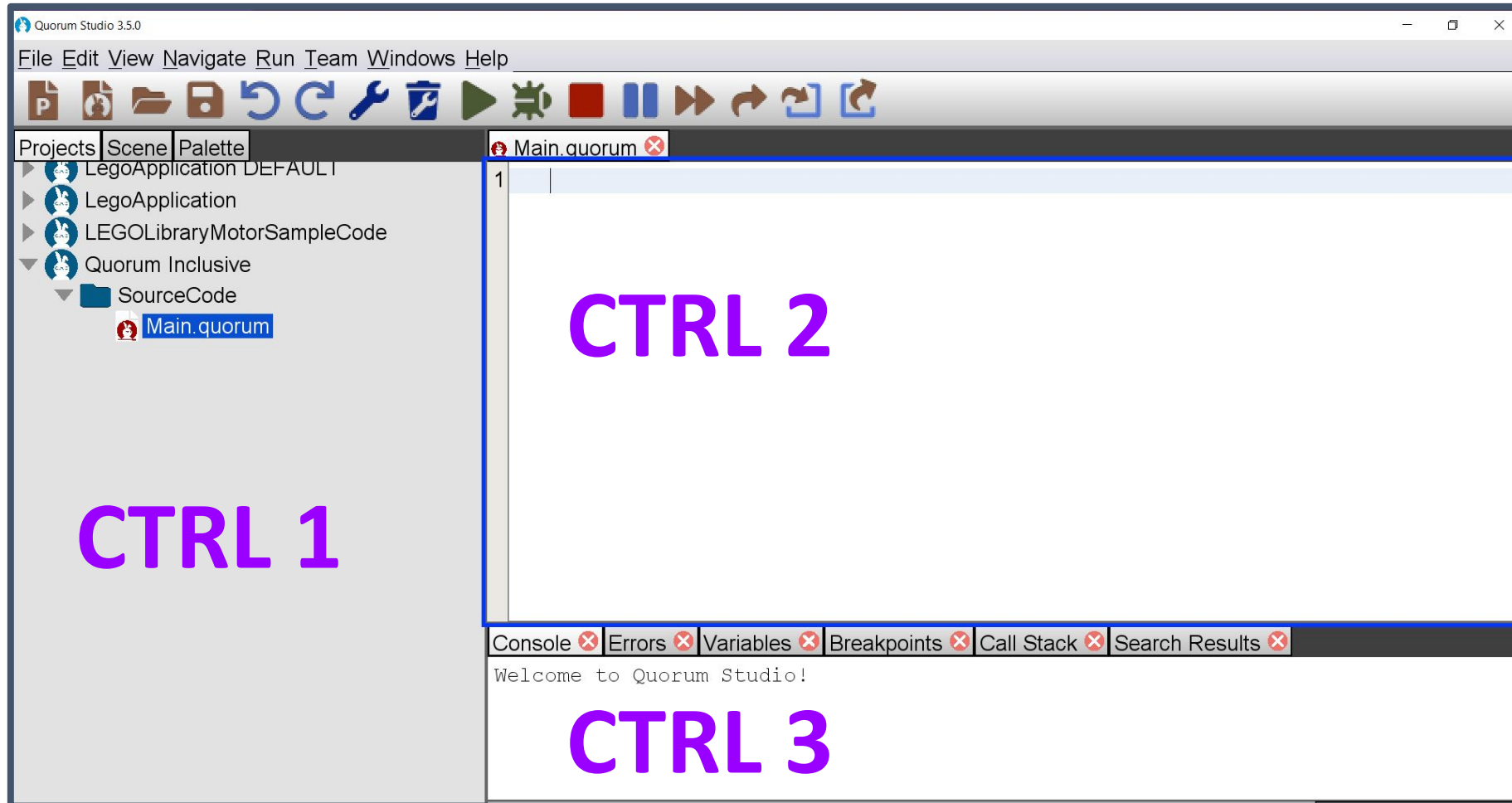
Why Quorum?

➢ Quorum is the world's first [evidence-oriented programming language](#)
  ○ Language Wars, Static vs. Dynamic Typing, Notation, Block-based Learners & Text-Based Learners
  ○ Blind and low vision, English Language Learners, Learning Disabilities (Example: Dyslexia)
➢ Quorum was "born accessible" //This is a big deal. How many other IDE's are accessible?
  ○ Screen reader //JAWS, NVDA, etc.
  ○ Magnification //Ctrl + and Ctrl -
  ○ Other technologies //An example of other technologies is Snap & Read
  ○ Contrast
➢ Offline and online IDE //Quorum Studio and Quorum Online
➢ Significant support via [Google Group Listserv](#) and The Quorum Team
  ○ Annual EPIQ (Experience Programming in Quorum)

Why Quorum and What Is An IDE?
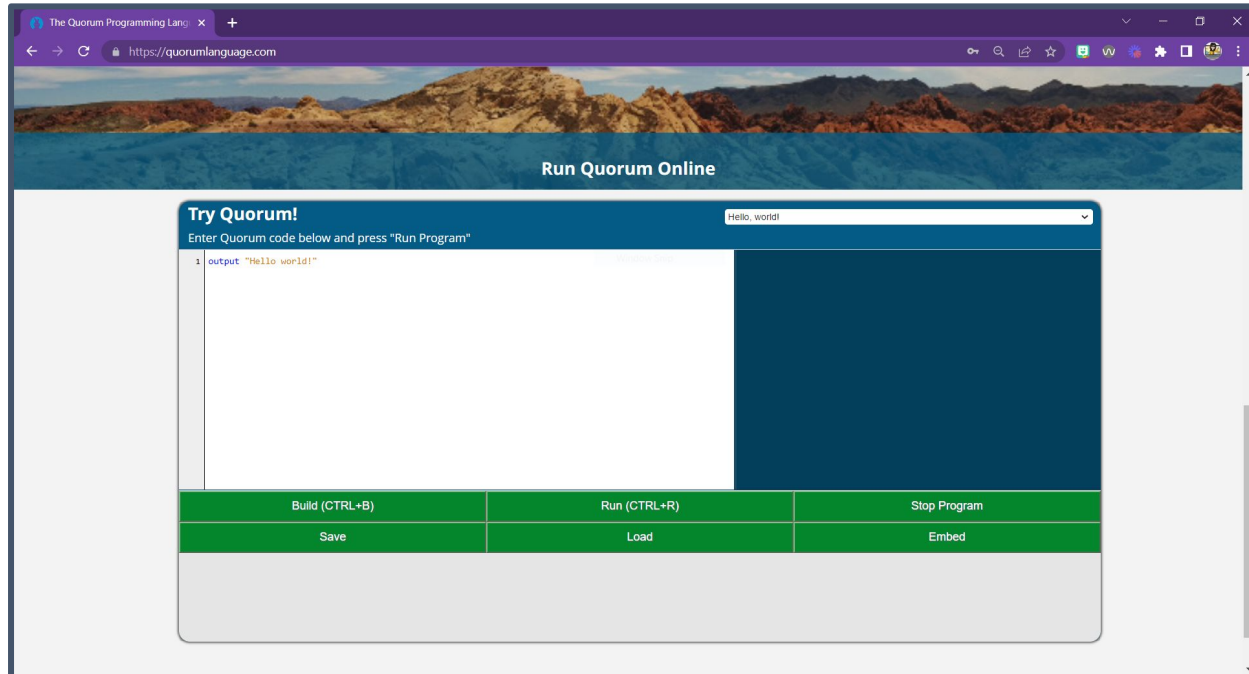

➢ IDE stands for "Integrated Development Environment"

- **Quorum Studio** is a downloadable IDE
- [Access this hyperlink for Google Slides that demo the download](#)

Why Quorum and An Online IDE?
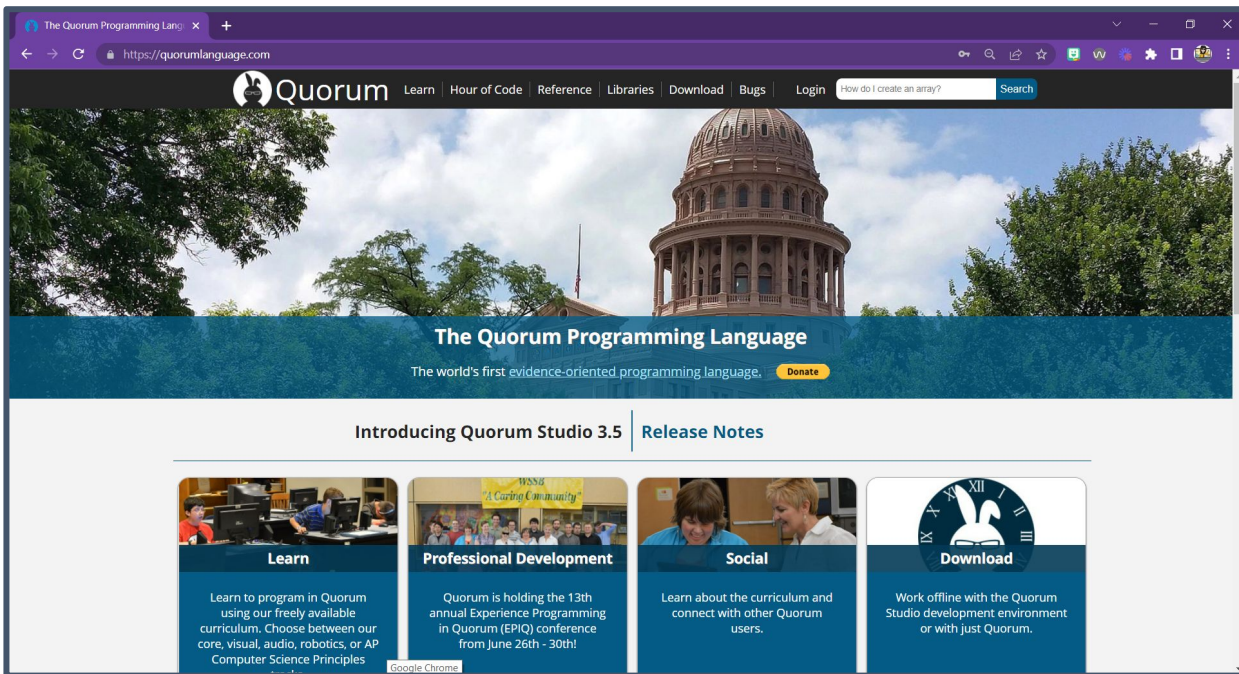
➤ Quorum hosts an online IDE on its home page, which is found at quorumlanguage.com

○ No download required!

○ Example codes provided in the "Hello World" drop down menu

○ It's accessible

Quorum: An Accessible Programming Language Video

➢ The language is simpler
➢ It's accessible! It's inclusive!
➢ Find a bug? Stefik can fix that!

Quorum sounds great, but . . .

Try Quorum!

Enter Quorum code below and press "Run Program"

```
1   output "Hello world!"
```

Quorum Provides Lots of Sample Code

Try Quorum!

Enter Quorum code below and press "Run Program"

Hello, world!

```
1  output "Hello world!"
2  output "Hello world!"
3  output "Hello world!"
4  output "Hello world!"
5  output "Hello world!"
```

Build (CTRL+B)	Run (CTRL+R)	Stop Program
Save	Load	Embed

```
Build Successful
Hello world!
Hello world!
Hello world!
Hello world!
Hello world!
```

Run Quorum Online

Try Quorum!
Enter Quorum code below and press "Run Program"

```
1  repeat 3 times
2      output "Quorum"
3  end
```

Loops ∨
- Hello, world!
- Conditionals
- **Loops**
- Actions
- Classes
- Audio

Build (CTRL+B)	Run (CTRL+R)	Stop Program
Save	Load	Embed

```
Build Successful
Quorum
Quorum
Quorum
```

➢ The drop down menu provides working code! Play with it! Break it!
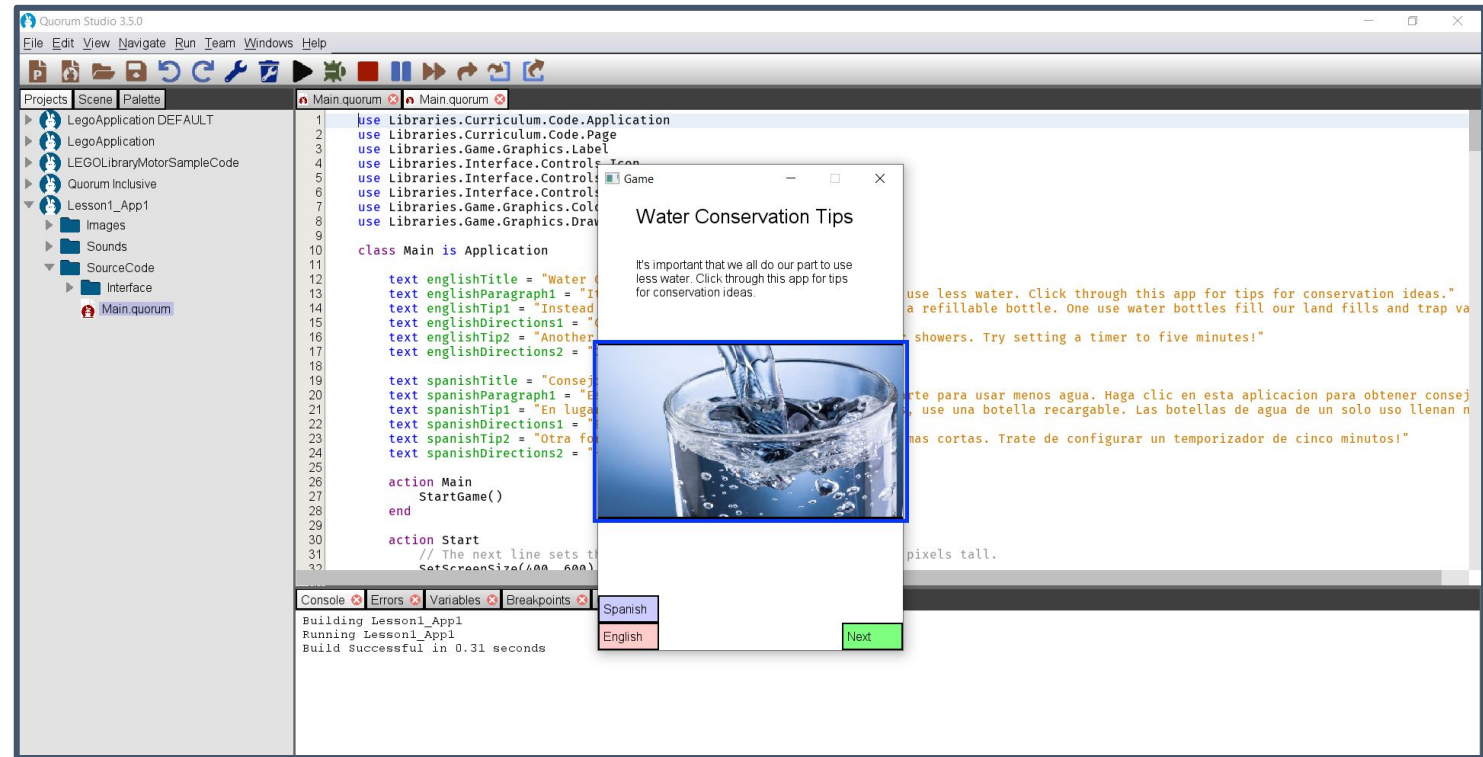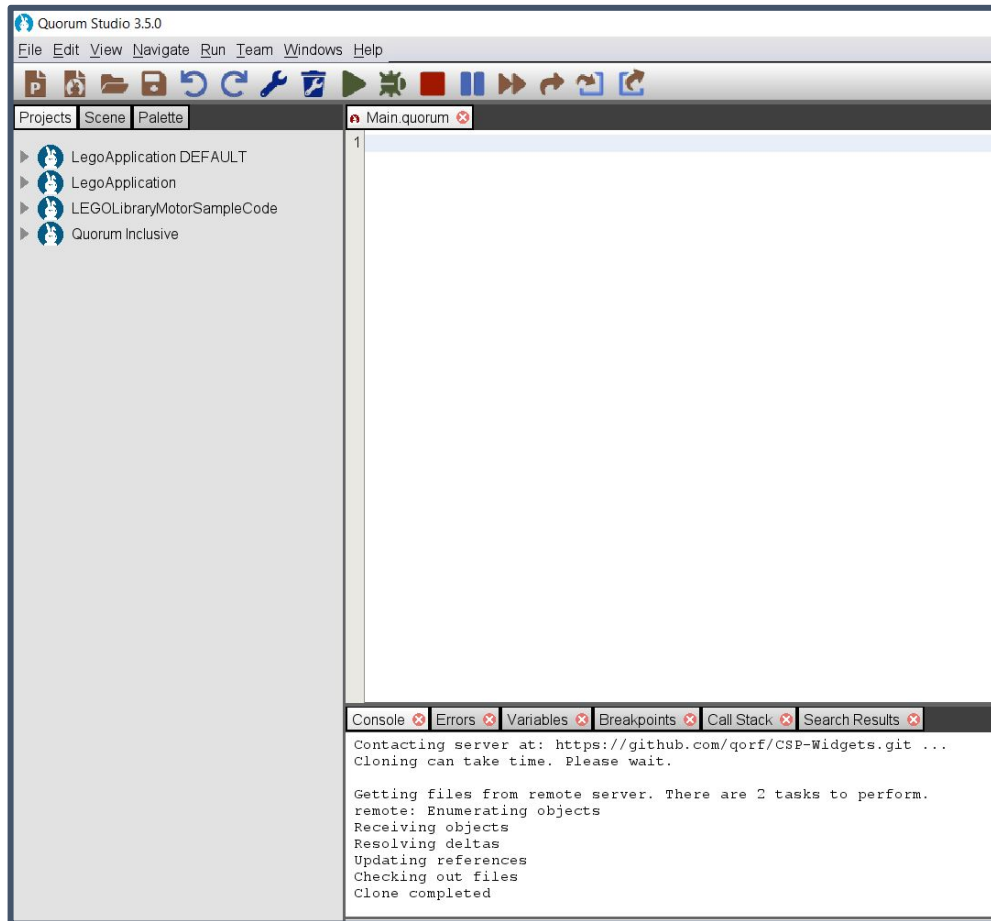
Quorum "Tracks"

- [Core Track](#) //Start here
- [Visual Track](#)
- [Audio Track](#)
- [Robotics Track](#) //Quorum Lego Robotics
- [Computer Science Principles Track](#) //AP CSP
- [Teacher Track](#) //Role-playing game training!

AP CSP

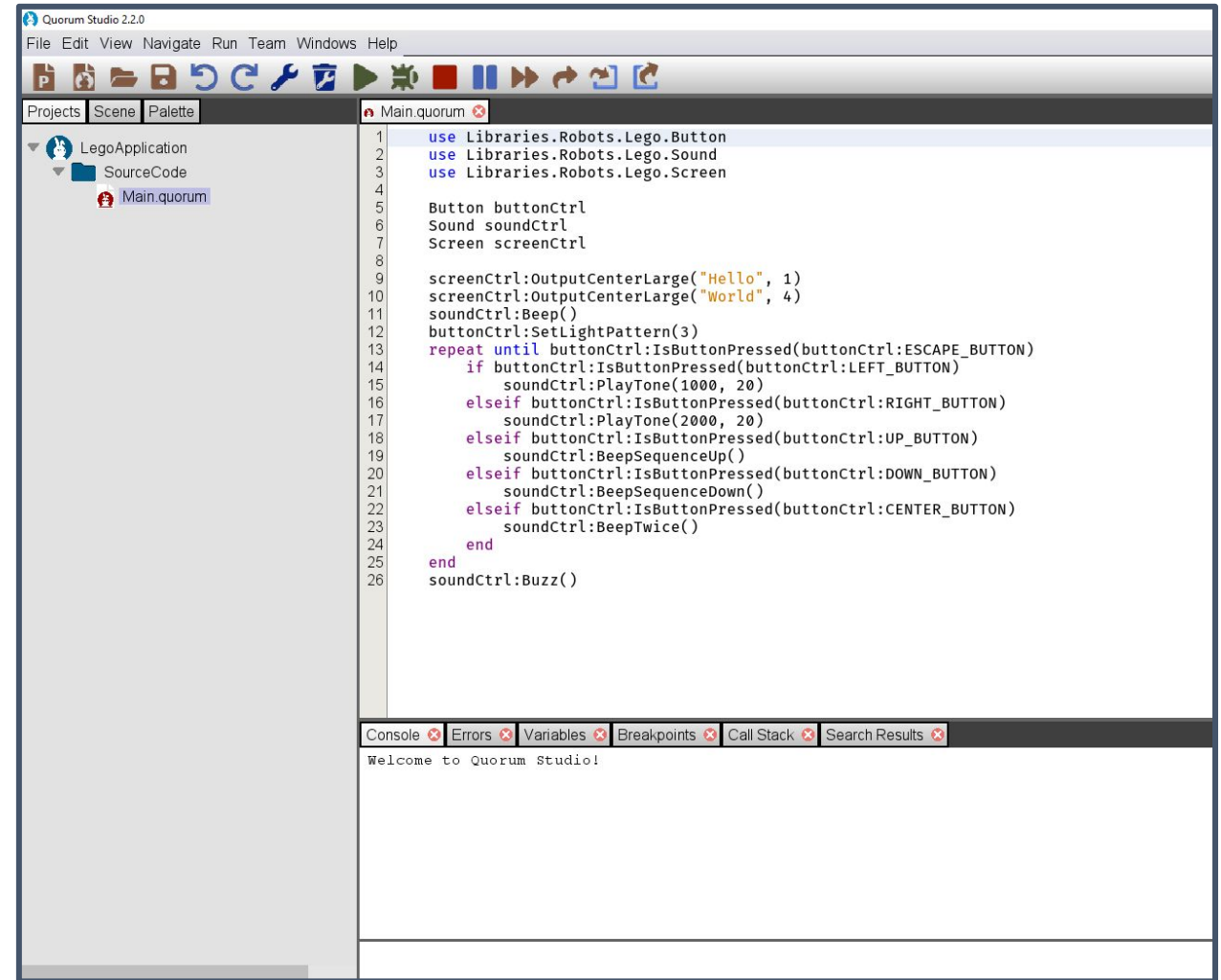**Accessible curriculum based on the Code.org AP Computer Science Principles curriculum**

➢ Cloning, Sample Code, & Accessible Widgets!

Quorum Lego Robotics

1. Lego EV3 Kit (Discontinued June 2021)
2. SD card with LeJos from Tim Lockwood
3. Windows 10 Laptop with Quorum Studio
4. Use the Quorum Lego Library for sample programs!

Quorum Studio 2.2.0

File Edit View Navigate Run Team Windows Help

Projects Scene Palette   Main.quorum

```
LegoApplication          1    use Libraries.Robots.Lego.Button
  SourceCode             2    use Libraries.Robots.Lego.Sound
    Main.quorum          3    use Libraries.Robots.Lego.Screen
                         4
                         5    Button buttonCtrl
                         6    Sound soundCtrl
                         7    Screen screenCtrl
                         8
                         9    screenCtrl:OutputCenterLarge("Hello", 1)
                         10   screenCtrl:OutputCenterLarge("World", 4)
                         11   soundCtrl:Beep()
                         12   buttonCtrl:SetLightPattern(3)
                         13   repeat until buttonCtrl:IsButtonPressed(buttonCtrl:ESCAPE_BUTTON)
                         14       if buttonCtrl:IsButtonPressed(buttonCtrl:LEFT_BUTTON)
                         15           soundCtrl:PlayTone(1000, 20)
                         16       elseif buttonCtrl:IsButtonPressed(buttonCtrl:RIGHT_BUTTON)
                         17           soundCtrl:PlayTone(2000, 20)
                         18       elseif buttonCtrl:IsButtonPressed(buttonCtrl:UP_BUTTON)
                         19           soundCtrl:BeepSequenceUp()
                         20       elseif buttonCtrl:IsButtonPressed(buttonCtrl:DOWN_BUTTON)
                         21           soundCtrl:BeepSequenceDown()
                         22       elseif buttonCtrl:IsButtonPressed(buttonCtrl:CENTER_BUTTON)
                         23           soundCtrl:BeepTwice()
                         24       end
                         25   end
                         26   soundCtrl:Buzz()
```

Console Errors Variables Breakpoints Call Stack Search Results

Welcome to Quorum Studio!

FLL 2019-2020 DOT5UDOGS #6040

FLL
2019-2020

180
Optimum
#36214

First Lego League Maryland

TechBrick

NPR Podcast Challenge

Pi Day in Annapolis, Maryland

Maryland StemFest Podcast

District 45 Night in Annapolis, Maryland

Chesapeake Lighthouse Foundation #MayTheFourthBuildWithYou

Maryland CS Summit Bowie State University Diversity Panel

Lego Visit on MSB Campus

Hackground

Boys Latin School

Gilman School

EPIQ 2018

EPIQ (Experience Programming In Quorum) 2022

"This year's workshop is devoted to exploring the release of Quorum 9.5 and Quorum Studio 3.5. This year we are focusing on accessible Data Science. The Quorum team will lead a single track live on Zoom and slack."

Thank You!

Please feel free to be in touch!

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LinkedIn

#CodeWithMSB
#DOT5UDOGS
#180Optimum
#QDay
#CSTAEquityFellow