

# HONORS CAPSTONE: A2 VIRTUAL+ MDP

Eric Lian

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# AGENDA



**01**

**INTRODUCTION**

**02**

**FINAL  
DELIVERABLE**

**03**

**IMPACT &  
FUTURE STEPS**

**04**

**TAKEAWAYS**

# 01. INTRODUCTION

Meet the team  
Background



A K-12 online program based in Ann Arbor, created in 2013 in response to section 21f of the State School Aid Act

350 full-time K-5 students and ~2000 enrollments in middle school and high school courses

Current registration process is tedious for all involved (i.e. students, guardians, and administrators)

Desire an online course registration website that is intuitive and is easily accessible by students/guardians and efficiently managed by administrators

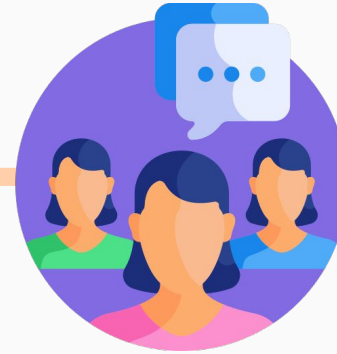
## SPONSOR'S HIGH LEVEL GOALS



**SIMPLE, FLEXIBLE  
ONLINE CLASS  
REGISTRATION**



**SECURE DATA ANALYSIS  
& EXPORT**



**EFFICIENT MANAGEMENT  
OF USERS AND COURSES**



**ACCESSIBLE TO USERS  
ACROSS ALL DEMOGRAPHICS**

# STAKEHOLDERS

## A2 VIRTUAL & AAPS

- On-Site Admin
- Coordinators
- Principals
- Counselors
- Teachers



## STUDENTS & FAMILIES IN A2 & BEYOND

- K-12 students
- Parents/Guardians



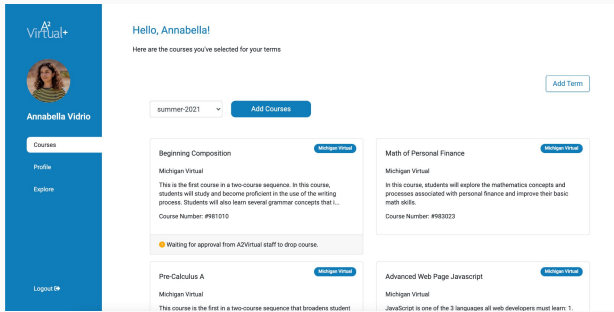
## MI DEPT. OF EDUCATION

- Regulatory information
  - Student demographics
  - 504/IEP Plan

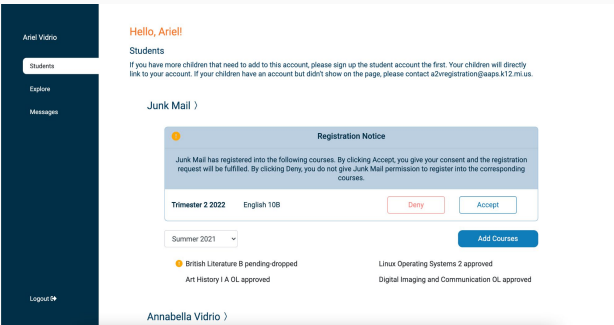


## 02. FINAL DELIVERABLE

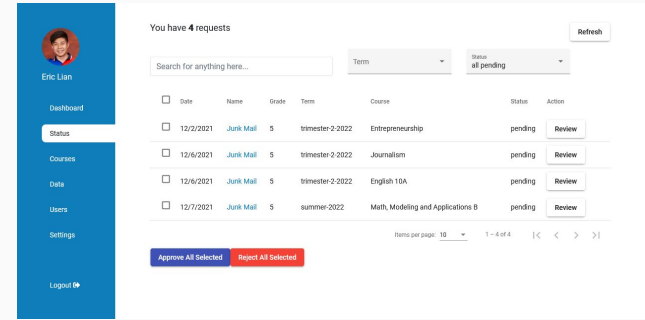
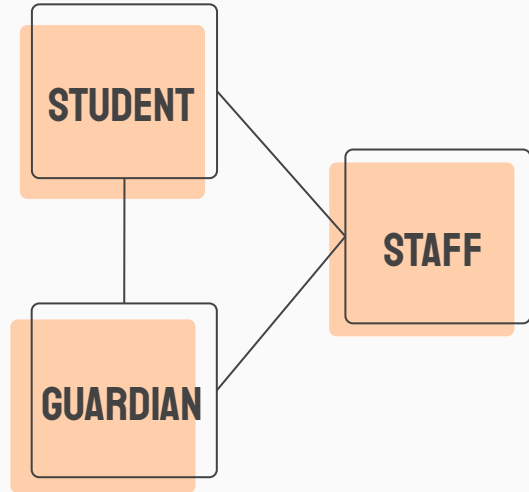




- Set up/Sign/Logout of Accounts
- Directly register into courses for a given term
- View recent and past term registrations
- Manage/update personal information via Profile Page
- View Courses Available via course Explore Page



# WHAT WE HAVE DONE?

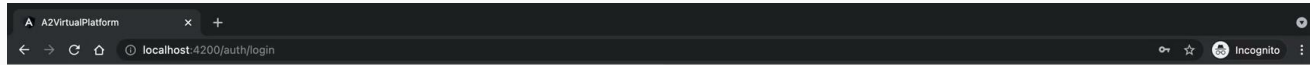


- Easily manage and update course details
- See a holistic view of all registrations
- Deny and approve courses
- Counselor Dashboard and Viewing

- Manage multiple children's registration
- Easily access their student's registrations
- Course approval and denial for students
- Quick and easy notification via email



# DEMO: STUDENT REGISTRATION



## Sign In

Don't have an account yet? [Register](#)



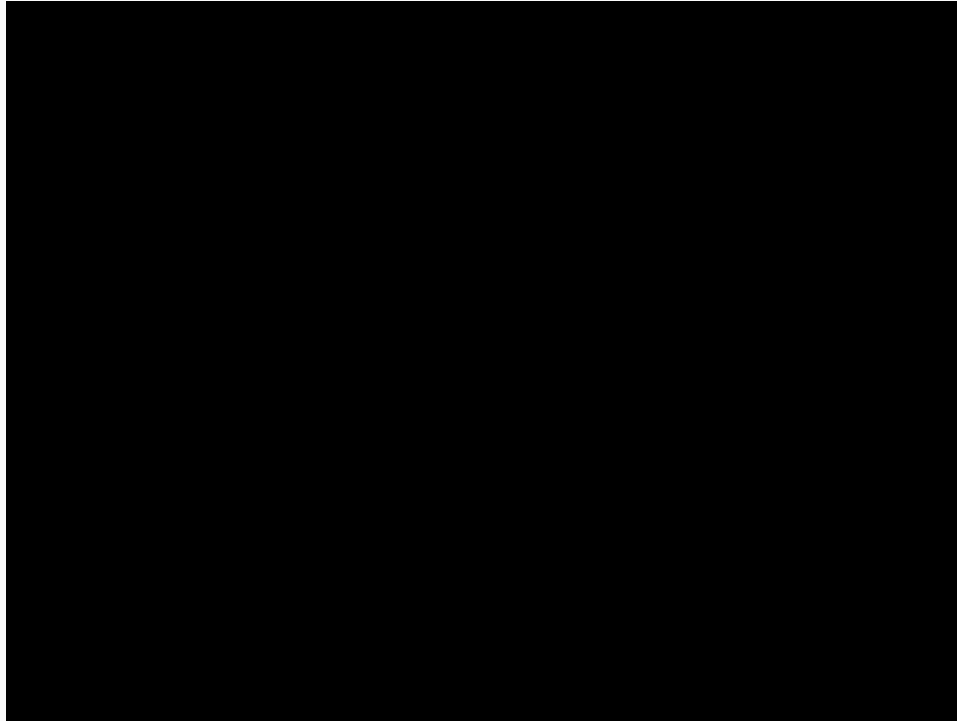
Email

Password

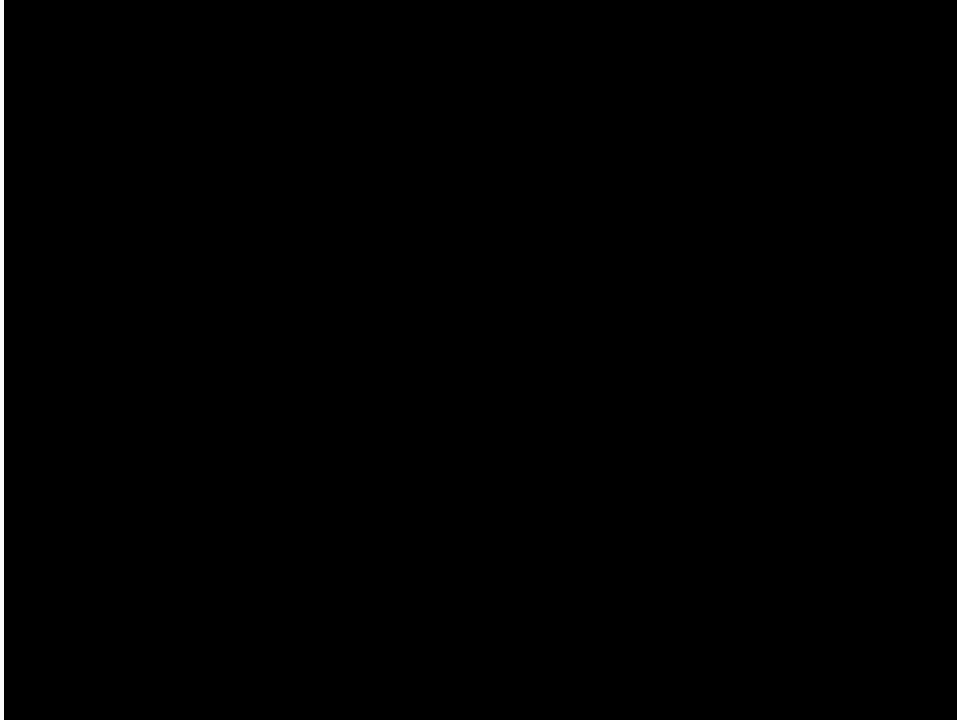
[Forgot Password?](#)



## DEMO: COURSE REGISTRATION



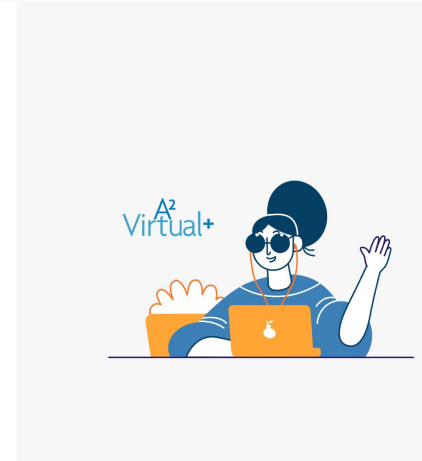
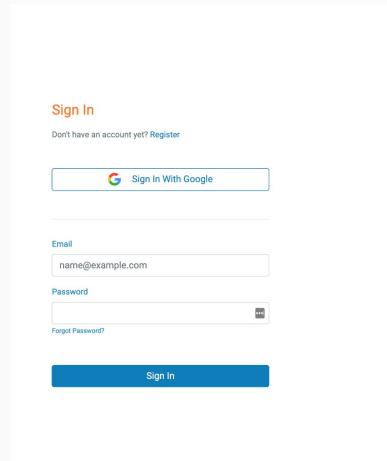
## DEMO: ADMIN COURSE APPROVAL



### 03. IMPACT & NEXT STEPS



- **Saves time for students, parents, and A2 Virtual+ staff**
  - **Sponsor will use the app in production in the coming registration seasons**
  - Students and parents can register in a much more efficient manner
  - Counsellors can easily review the registration requests of their students
  - Administrators can manage course registration in one place and export corresponding data
- **Relatively low maintenance**
  - Low cost for using 3rd party services (e.g. Firebase)
  - Complete documentation (code + system diagrams)
- **Secure**
  - Student data is securely stored in Google's databases



# 04. TAKEAWAYS



## KEY TAKEAWAYS

- **Valuable technical skills**
  - Web dev (Typescript, Firebase, RxJS), version control (Git)
  - Agile development process & working with a client on an app with real-world implications
- **Design projects and many real-world problems are inherently ambiguous**
  - Only given high level goals at the beginning
- **Stay organized**
  - Clear delegation of tasks and division of labor
- **Open communication**
  - Prevents misunderstandings

# THANK YOU!

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