# MESA Everyday

MEMBERS:
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# The Product

Gamifies the MESA experience for students (6th grade and up)

1. Collect core data about student experiences and their MESA journey

2. Give more concrete testimonials to obtain grant funding

3. Motivates students to participate in MESA sponsored activities and events to help them get college credits

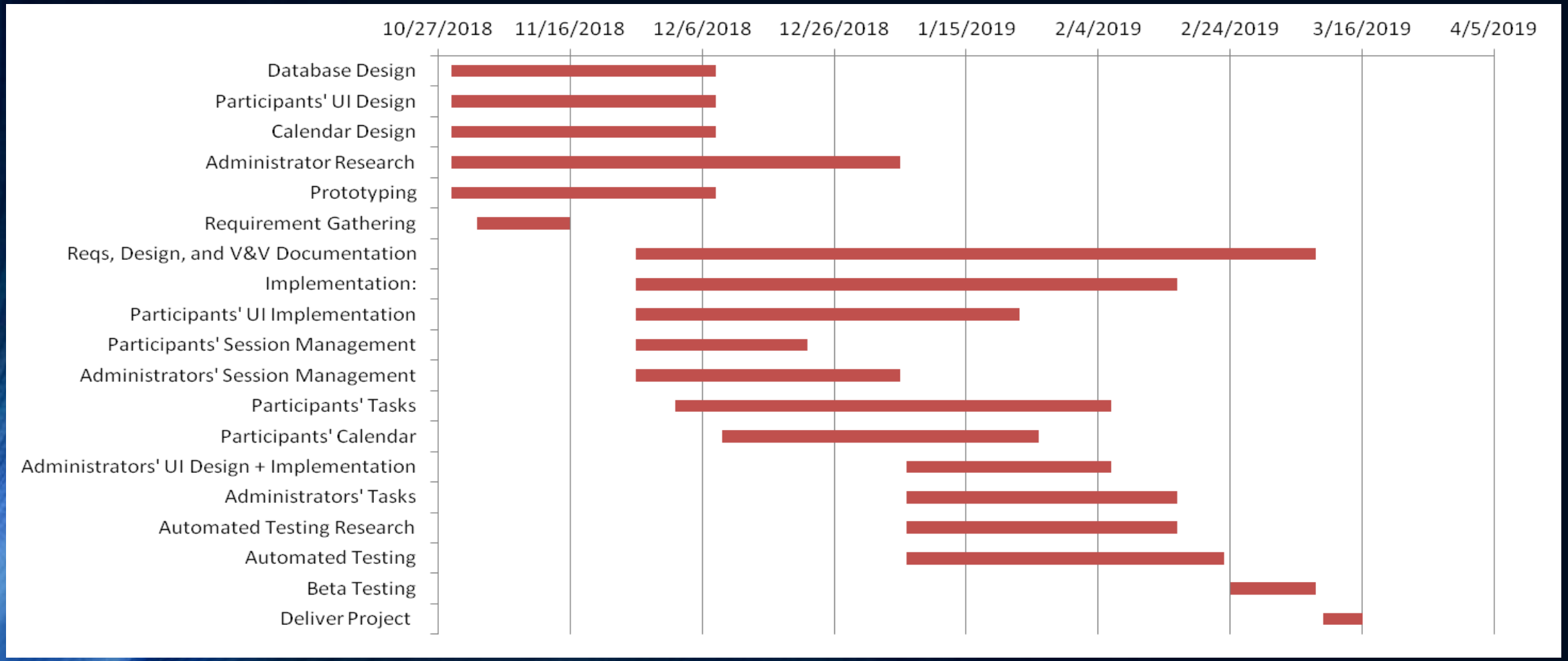
# Assumptions & Constraints

- Will be used by students as young as sixth grade
- Data integrity is questionable
- Adapt to different screen sizes
- Eventually hosted on a domain purchased by the client
- Someone must maintain the code base after us

# Features

- Landing Page for registration and signing in
- Responsive UI for the participants and the admins
- Participants can track and manage their progress
- Administrators are able to modify the rules of the game
- Google Calendar and countdown for upcoming events

# Milestone and Deliverables Gannet



# Schedule of Deliverables

| | | | |
|---|---|---|---|
| Database Design | 10/29/2018 | 12/8/2018 | 40 |
| Participants UI Design | 10/29/2018 | 12/8/2018 | 40 |
| Calander Design | 10/29/2018 | 12/8/2018 | 40 |
| Adminstrator Reserach | 10/29/2018 | 1/5/2019 | 68 |
| Prototyping | 10/29/2018 | 12/8/2018 | 40 |
| Requirement Gathering | 11/2/2018 | 11/16/2018 | 14 |
| Reqs, Design, and V&V Documentation | 11/26/2018 | 3/9/2019 | 61 |
| Implementation: | 11/26/2018 | 1/26/2019 | 58 |
| Participant UI Implementation | 11/26/2018 | 1/23/2019 | 24 |
| Adminstrator UI Design + Implementation | 1/13/2019 | 2/6/2019 | 24 |
| Participant's Session Management | 11/26/2018 | 12/22/2018 | 26 |
| Adminstrator's Session Management | 11/26/2018 | 1/5/2019 | 40 |
| Partcipant's Tasks | 12/2/2018 | 2/6/2019 | 66 |
| Adminstrator Tasks | 1/6/2019 | 2/16/2019 | 41 |
| Partcipant's Calander | 12/9/2018 | 1/26/2019 | 48 |
| Automated Testing Research | 1/6/2019 | 2/16/2019 | 41 |
| Automated Testing | 1/6/2019 | 2/23/2019 | 48 |
| Beta Testing | 2/24/2019 | 3/9/2019 | 13 |
| Deliver Project | 3/10/2019 | 3/16/2019 | 6 |

# Deploying Deliverables

- The end goal is to have the web app hosted on a domain
- The app will be hosted in the CAT infrastructure throughout the whole process

# Process Used

- Primarily uses the Waterfall model w/ some Agile elements
  1. Gather requirements from sponsor
  2. Design the product from the requirements
  3. Implement the product using designs
  4. Deliver the product
- Tested during implementation
- Daily Standup Meetings

# Team Roles

| | |
|---|---|
| Fadi Labib: | Project Manager, Risk Analyst, Product Owner |
| Michael Cohoe: | Developer, Architect: Backend, QA |
| Thong Tran: | Developer, Architect: Frontend, QA |
| Chris Bartlett: | Developer, Infrastructure & Hosting, QA |
| Millen Wan: | Developer, Security Researcher, QA |
| Minwei Luo: | Developer, QA |
| Minh Nguyen: | Developer, QA |

# Problems and Contingencies

## Losing Code Base

| Description Summary | Probability | Severity | Risk |
|---|---|---|---|
| The repository containing the codebase is lost | 1 | 4 | 4 |
| **OWNER(s):** | Fadi Labib, Tong Tran, Michael Cohoe | | |

## Admin Session Management Failure

| Description Summary | Probability | Severity | Risk |
|---|---|---|---|
| Failing to implement admin account because of complexity/deadline concerns | 4 | 2 | 8 |
| **OWNER(s):** | Fadi Labib, Michael Cohoe, Millen Wan | | |

## Web App Production Hosting Failure

| Description Summary | Probability | Severity | Risk |
|---|---|---|---|
| Failing to get a domain to deploy the website in production mode | 4 | 3 | 12 |
| **OWNER(s):** | Fadi Labib, Christopher Bartlett | | |

## CAT Infrastructure Stops Working

| Description Summary | Probability | Severity | Risk |
|---|---|---|---|
| CAT updates and the likes may break our app impeding work progress | 4 | 3 | 12 |
| **OWNER(s):** | Fadi Labib, Christopher Bartlett | | |

# Problems and Contingencies

- **Losing Code Base**
  - **All data is backed up by everyone daily**
  - **Master branch is backed up every time changes are merged to it**
- **Admin Session Management Failure**
  - **Admin side is a stretch goal**
  - **Client is aware that an admin side may not be part of end deliverables**

# Problems and Contingencies

- **Web App Production Failure**
  - **Developers will provide proof of concept as the minimum viable product**
  - **Code will be annotated, accessible, and deployable**
  - **Client is aware they are responsible for obtaining a domain name**
  - **MESA will maintain the code after delivery**
- **CAT Infrastructure Stops Working**
  - **Developers will handle any maintenance needed prior to delivery**
  - **Developers will run the app locally w/ a local database**
  - **CAT team will be contacted to restart the app**

# Lessons Learned

- Getting Frontend build experience
- Building an app with session management to authenticate users and administrators
- Using the Python Flask framework
- Working with each other and improving people skills
- Gathering requirements from clients
- Quickly meeting requirements through prototyping