



ARMD Flight Data Portal

Alfredo Nunez

Simulation Branch

Mentors: Michael Ritchson 🚢 & David Tow 🚢

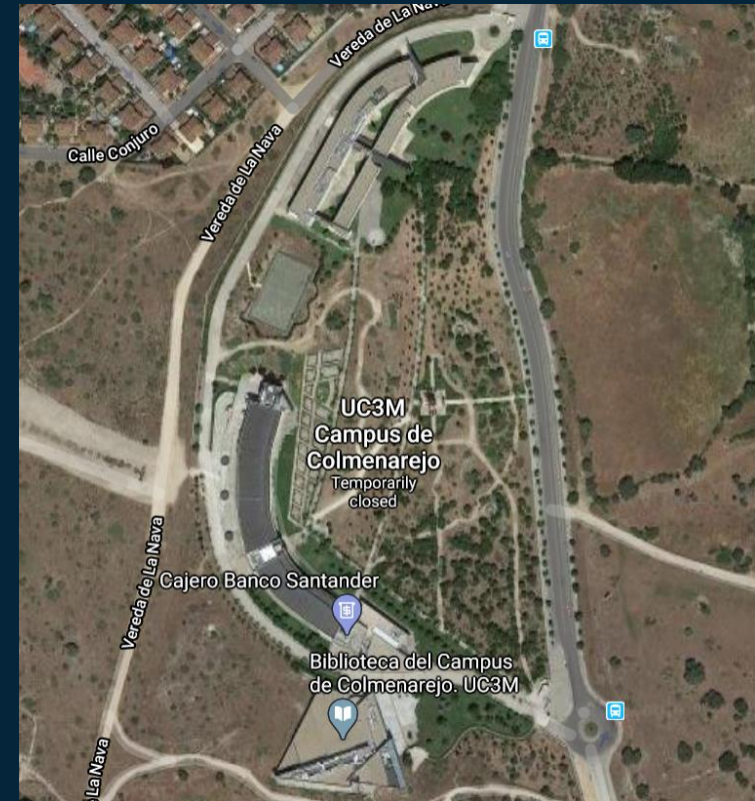
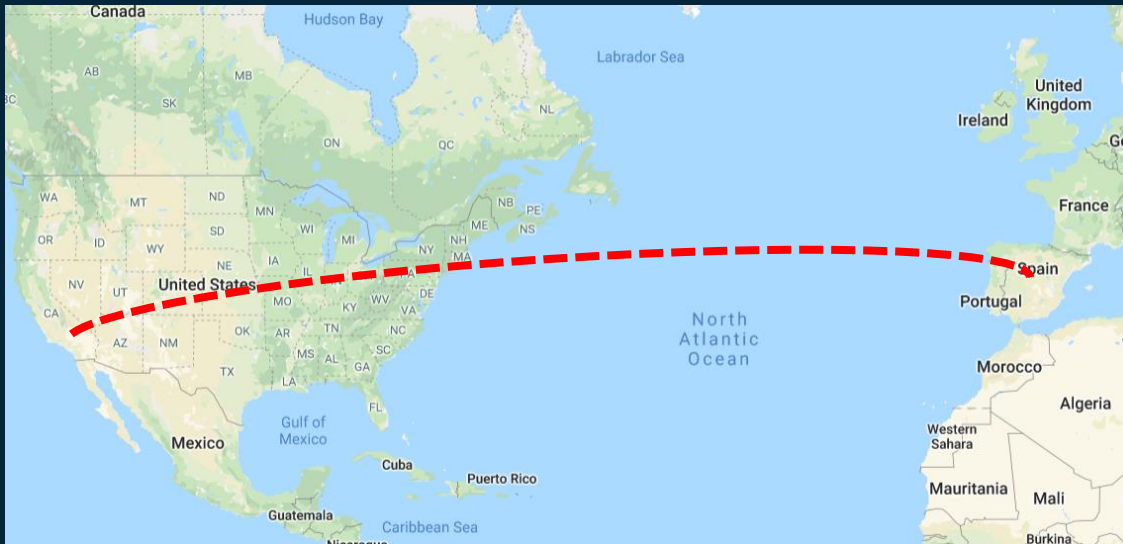


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Super Senior





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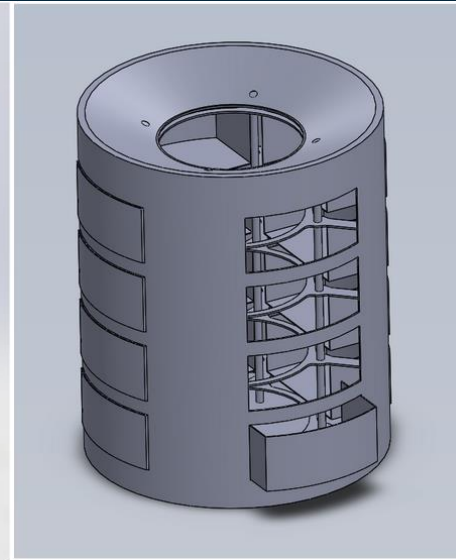
Super Senior





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About: Previous Work



Georgia Tech
Atlanta, USA



Accenture
Madrid, ES



MUFG
London, UK



AFDP Overview: What is AFDP?



Flight Event



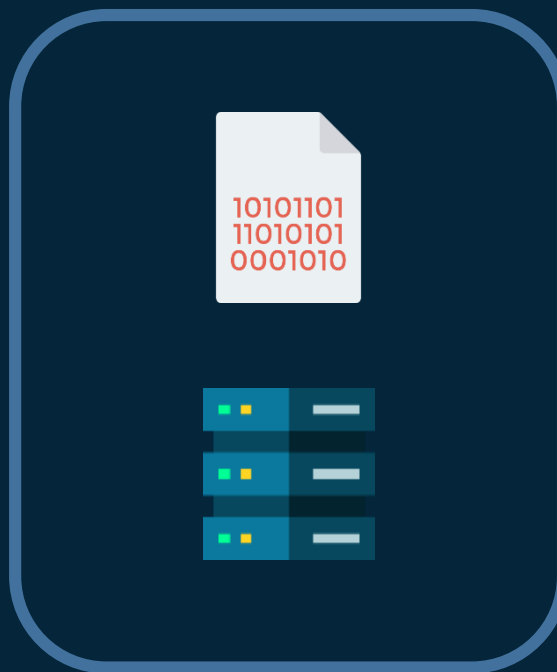


AFDP Overview: What is AFDP?

Flight Event



Data





AFDP Overview: What is AFDP?

Flight Event



Data



Research





AFDP Overview: What is AFDP?

Flight Event



Data



Research





AFDP Overview: FDAS and AFDP

FDAS

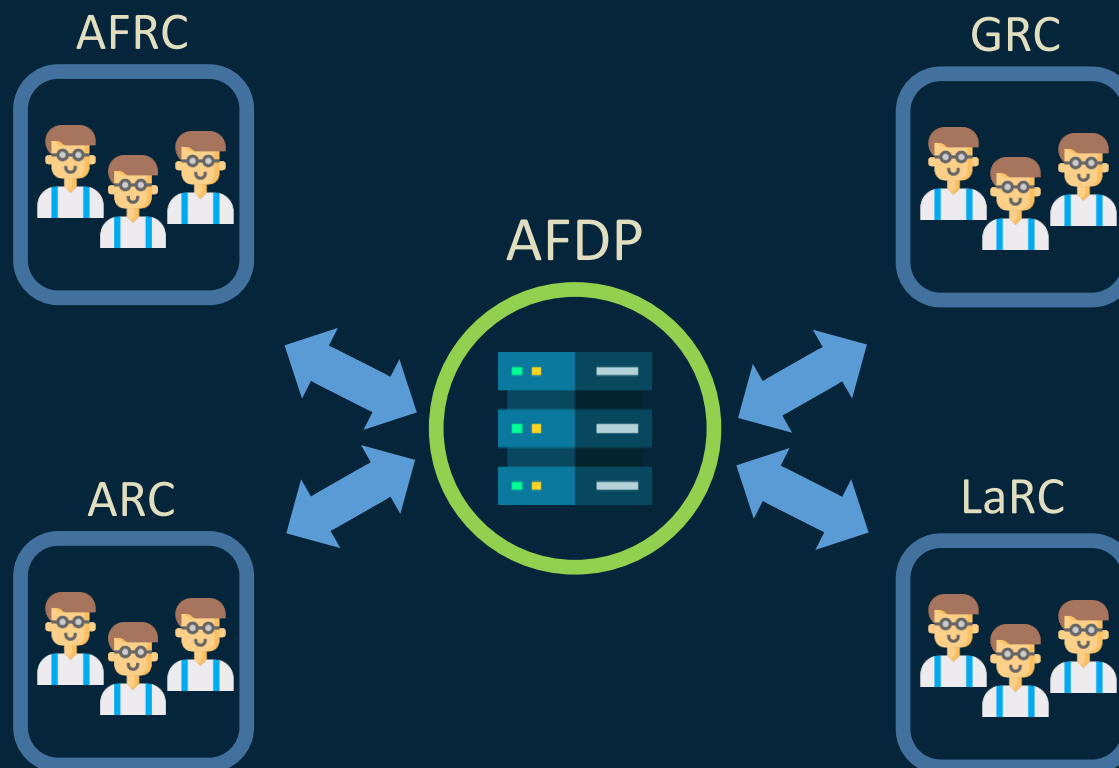


AFRC





AFDP Overview: FDAS and AFDP



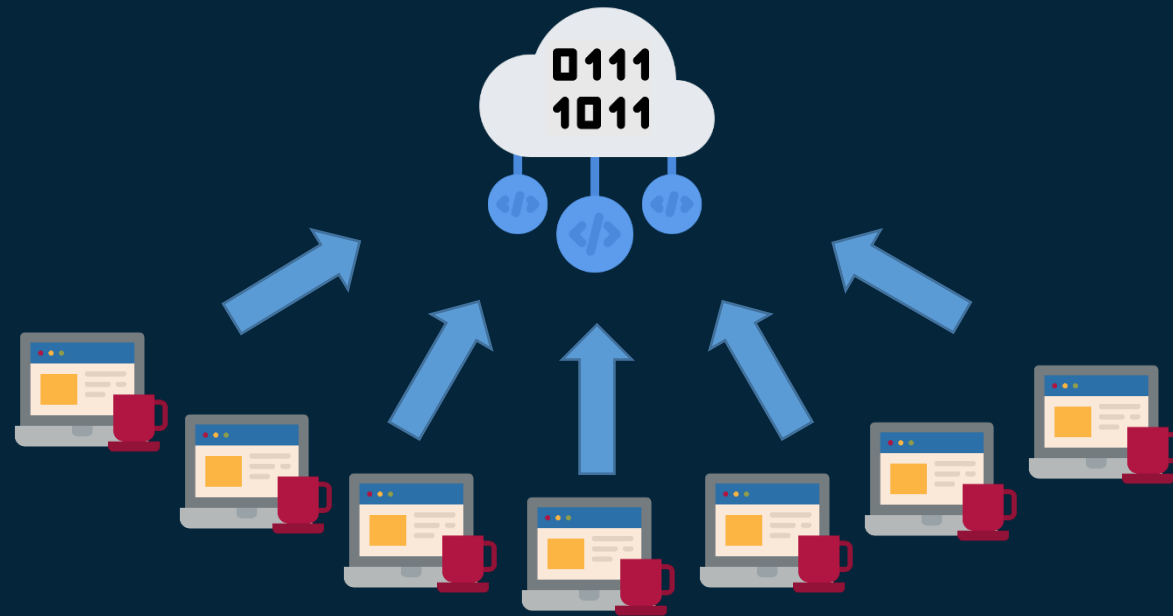


AFDP Overview: My Team



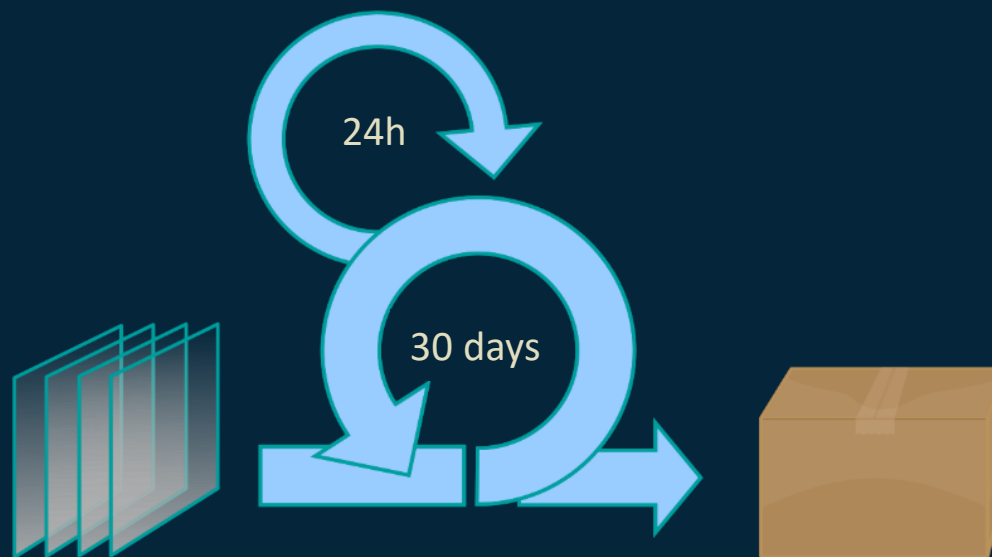


AFDP Overview: My Team





AFDP Overview: Work Methodology





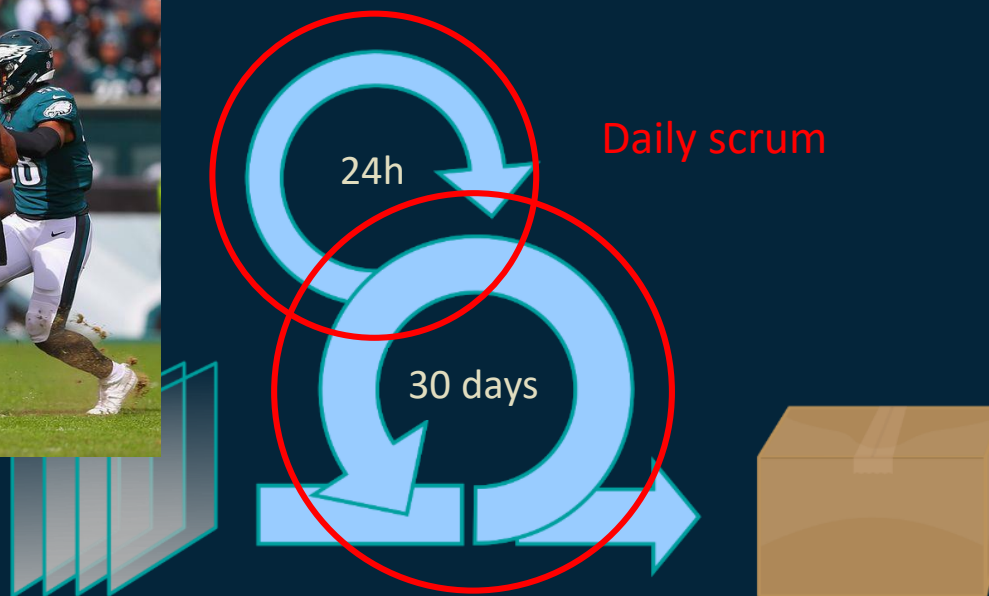
AFDP Overview: Work Methodology



Sprint Planning &
Storyboarding



AFDP Overview: Work Methodology





AFDP Overview: Work Methodology



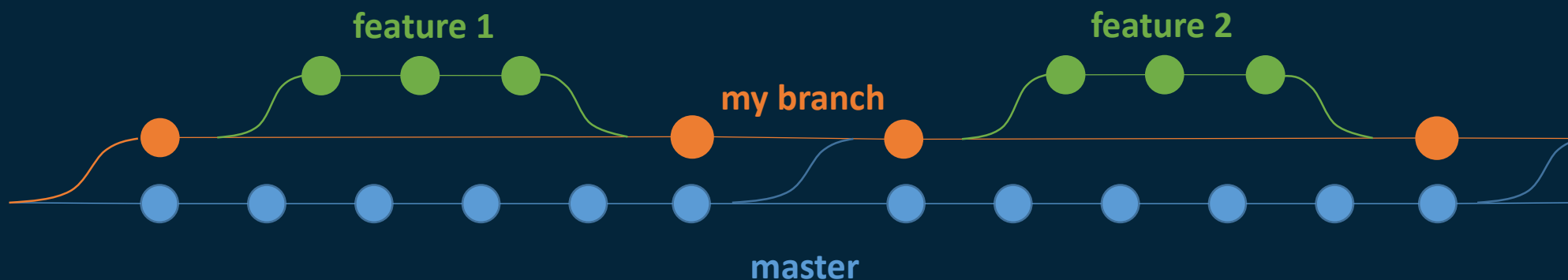
Demo w/ users





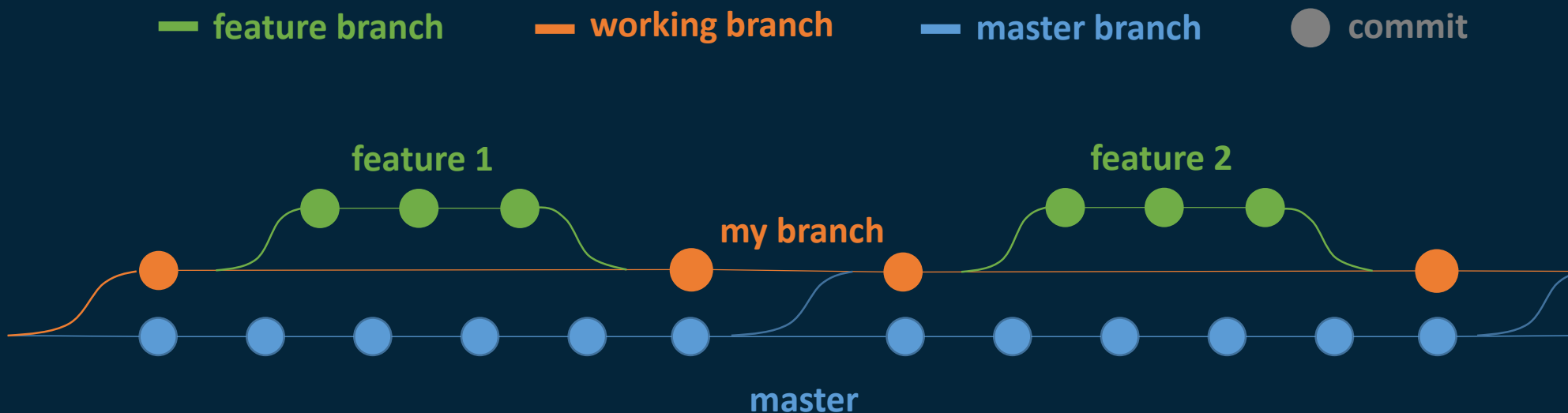
AFDP Overview: Version Controlling

— feature branch — working branch — master branch ● commit





AFDP Overview: Version Controlling



Bitbucket



Internship results



6 Sprints



> 4K Lines of code



> 150 Commits



NoSQL queries



Demo presentations



Code reviews



- ☒ Subproject 1
 - ☒ Experiment 2
 - ☒ Platform 6
 - ☒ Test Phase 6
 - ☐ Op Type 4
 - ☒ Op Type 5
 - ☒ Op Number 6
 - ☒ Facility 1

[0350](#) [1000](#) [Hz.h5](#)

- ☐ Subproject 2
- ☐ Subproject 3
- ☐ Subproject 5



Work: Components

Subprojects

Subproject 5

☒ Subproject 5

Experiments

Filter...

☒ Experiment 1

☒ Experiment 2

☒ Experiment 3

☐ Experiment 4

☒ Experiment 5

☐ Platforms

☐ Test Phases

☐ Op Types

☐ Op Numbers

☐ Facilities

Clear all

Search

Last Search

Criteria	Values	collapse	restore
Subprojects	Subproject 1, Subproject 2, Subproject 4, Subproject 5, Subproject 6		
Experiments	Experiment 1, Experiment 2, Experiment 3, Experiment 5, Experiment 6		

Results

34 results

«

1

2

»

Items / page

20

10

20

50

100

Subproject 6

GRC:GLENN RESEARCH CENTER

Facility - Op Type 4

Op Type - Op Number 2

Op Number - Facility 5

Subproject 6

GRC:GLENN RESEARCH CENTER

Facility - Op Type 1

Op Type - Op Number 5

Op Number - Facility 5

Subproject 6

GRC:GLENN RESEARCH CENTER

Facility - Op Type 1

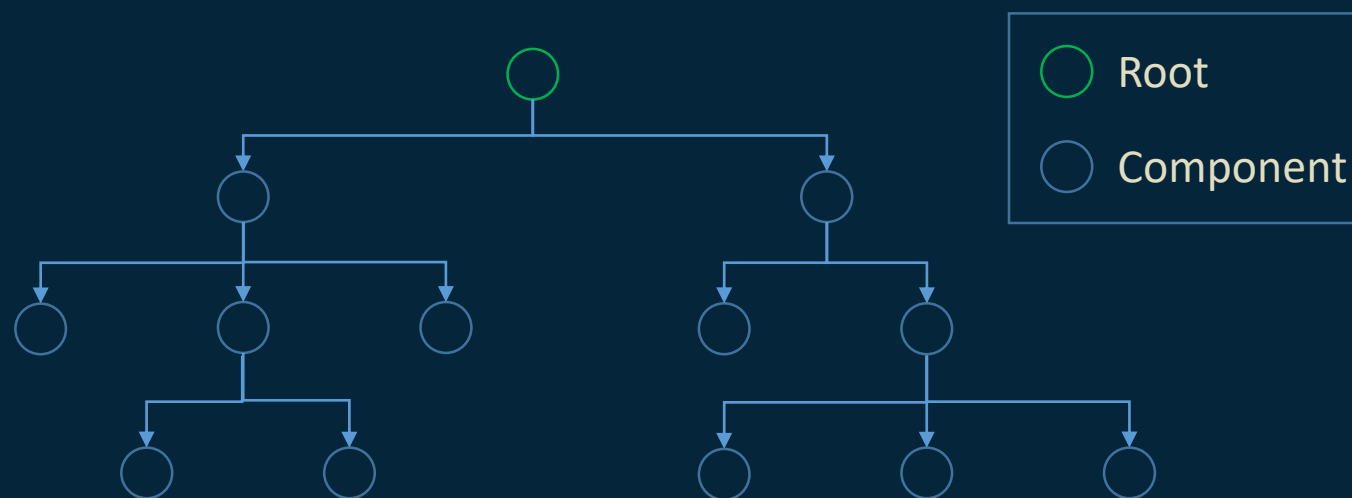
Op Type - Op Number 5

Op Number - Facility 5

Subproject 6



Work: Components





Work: Components





Work: Components



```
1 {  
2   "name": "Experiments",  
3   "values": ["Experiment 1", "Experiment 2",  
4             "Experiment 3", "Experiment 4",  
5             "Experiment 5", "Experiment 6"],  
6   "minNumFilterValues": 3,  
7   "multiSelect": true,  
8   "threeStateCheckbox": true,  
9   "required": false  
10 }
```

☐ Experiments ^

Filter...

☐ Experiment 1

☐ Experiment 2

☐ Experiment 3

☐ Experiment 4

☐ Experiment 5



Work: Components

```
1 {  
2   "name": "Experiments",  
3   "values": ["Experiment 1", "Experiment 2",  
4             "Experiment 3", "Experiment 4",  
5             "Experiment 5", "Experiment 6"],  
6   "minNumFilterValues": 3,  
7   "multiSelect": true,  
8   "threeStateCheckbox": false,  
9   "required": true  
10 }
```

Experiments*

Filter...

- ☐ Experiment 1
- ☐ Experiment 2
- ☐ Experiment 3
- ☐ Experiment 4
- ☐ Experiment 5



Work: Components



```
1 {  
2   "name": "Experiments",  
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4             "Experiment 3", "Experiment 4",  
5             "Experiment 5", "Experiment 6"],  
6   "minNumFilterValues": 7,  
7   "multiSelect": false,  
8   "threeStateCheckbox": false,  
9   "required": true  
10 }
```

Experiments*

☐ Experiment 2

☐ Experiment 3

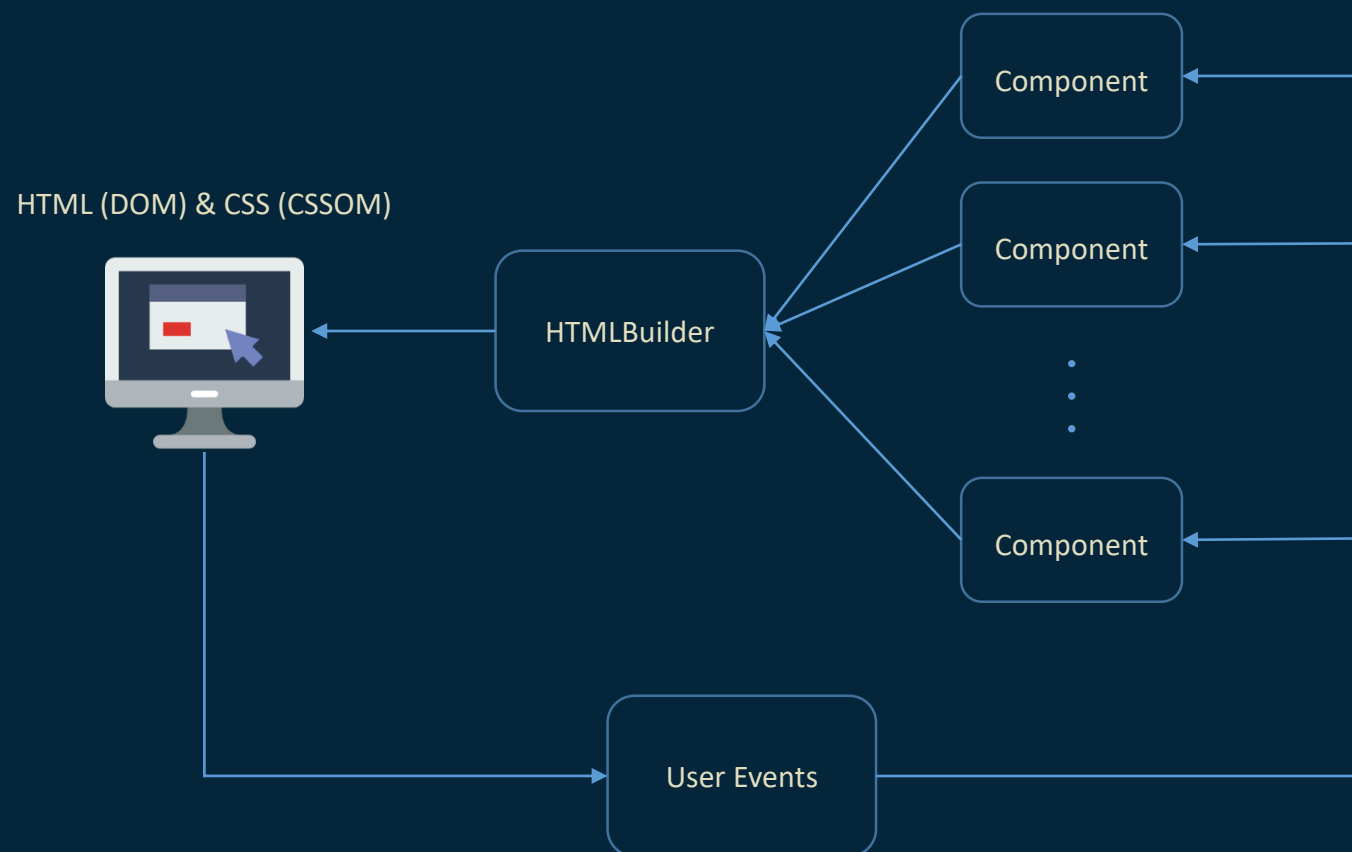
☐ Experiment 4

☐ Experiment 5

☐ Experiment 6

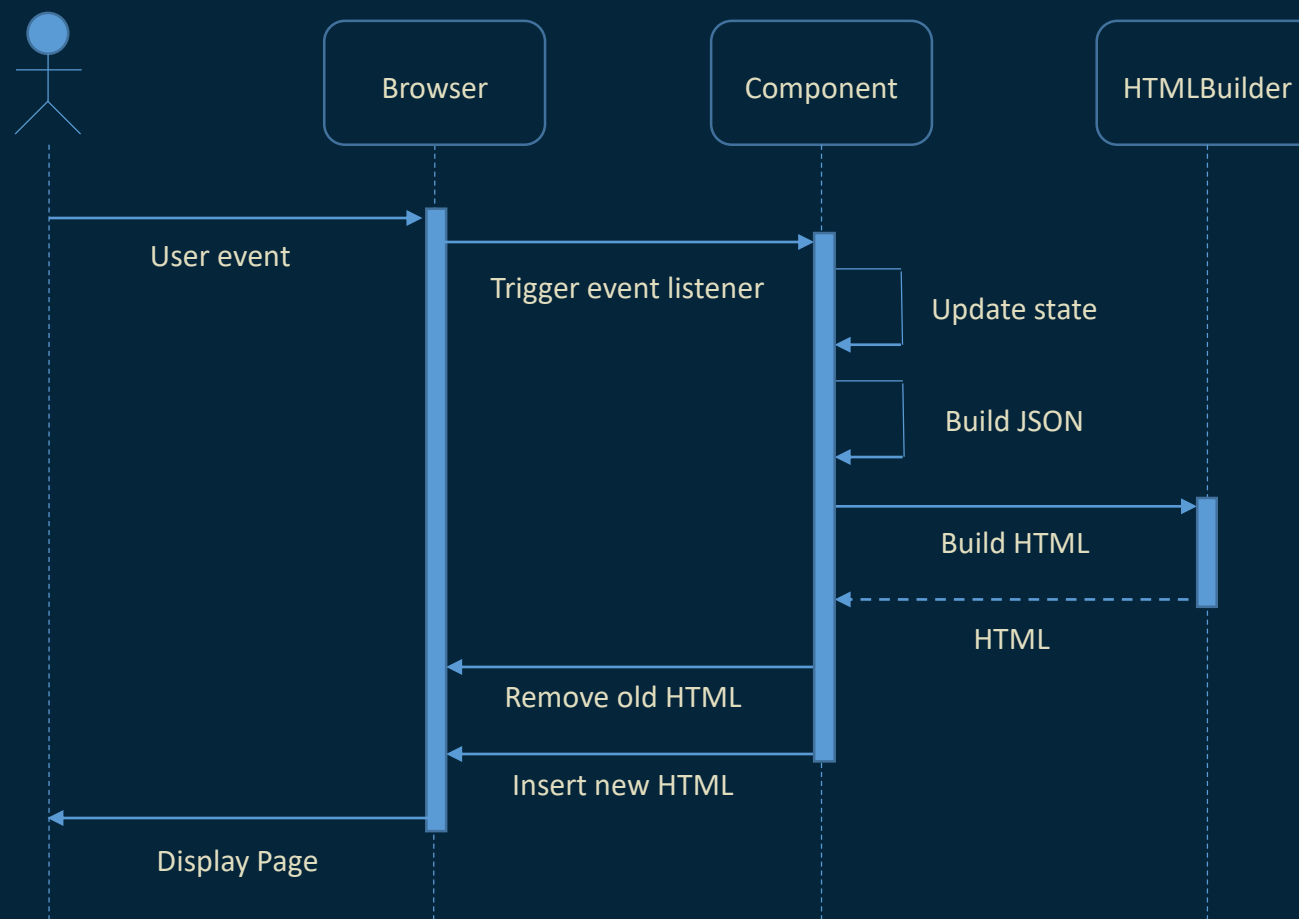


Work: Components



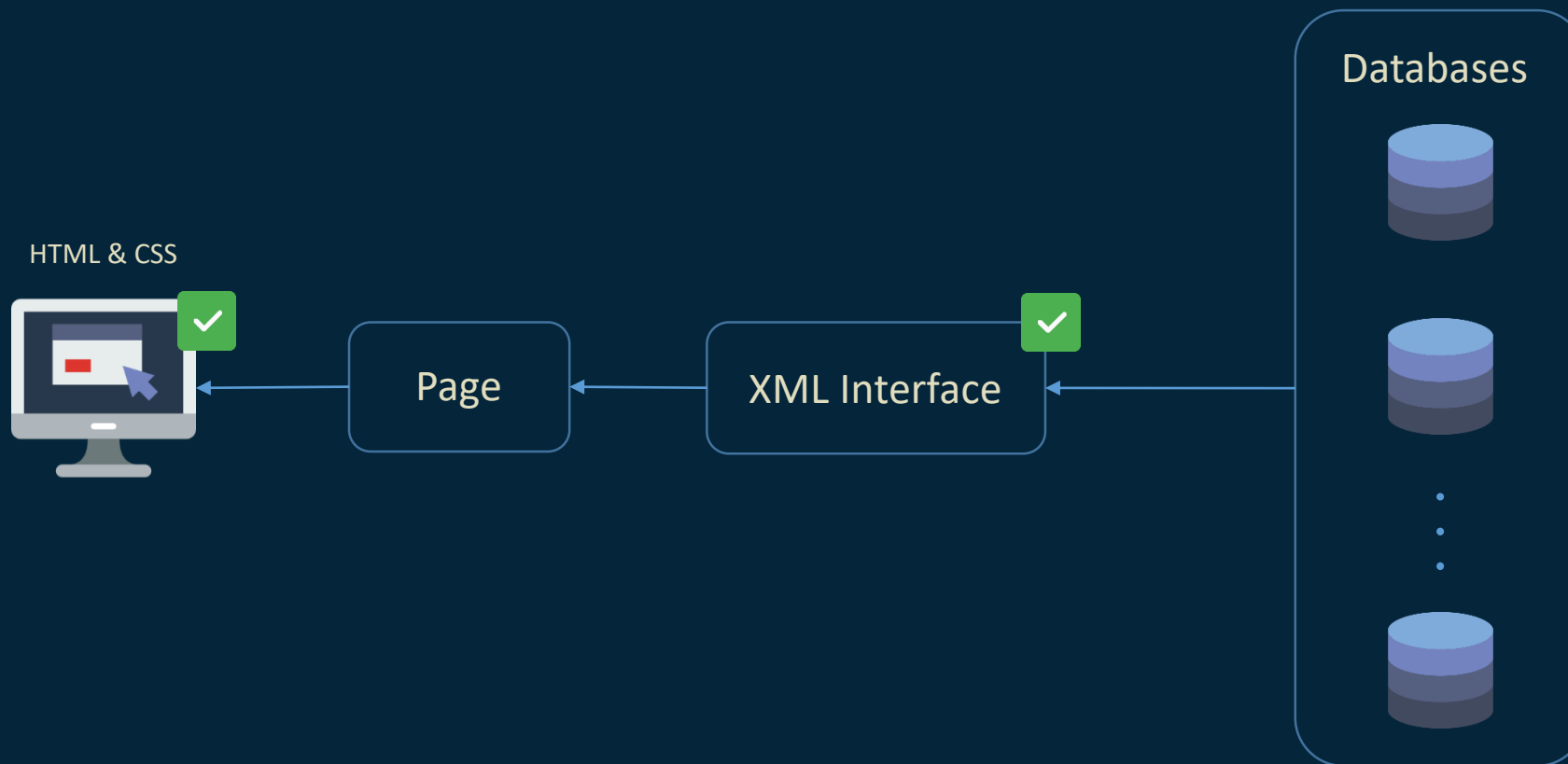


Work: Components





Work: Database Independence





Lessons Learned





Lessons Learned



- Roadblock prediction





Lessons Learned



- Roadblock prediction
- Task estimation





Lessons Learned



- Roadblock prediction
- Task estimation
- Contextual learning





Lessons Learned



- Roadblock prediction
- Task estimation
- Contextual learning
- Curiosity stimulation





Lessons Learned



- Roadblock prediction
- Task estimation
- Contextual learning
- Curiosity stimulation
- Telework efficiency

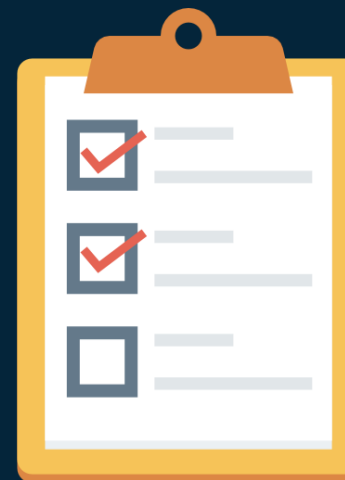




Future Work



- Search restrictions

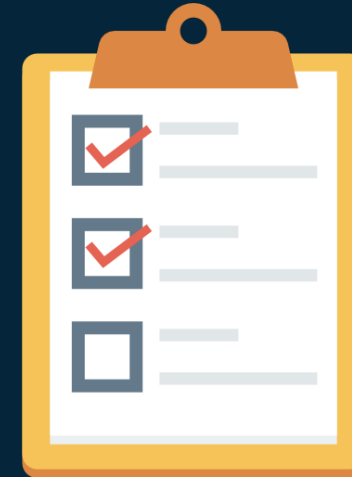




Future Work



- Search restrictions
- Additional search methods

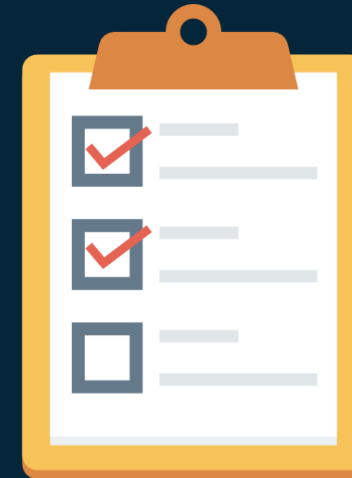




Future Work



- Search restrictions
- Additional search methods
- Application testing





Cool Stuff: Flights



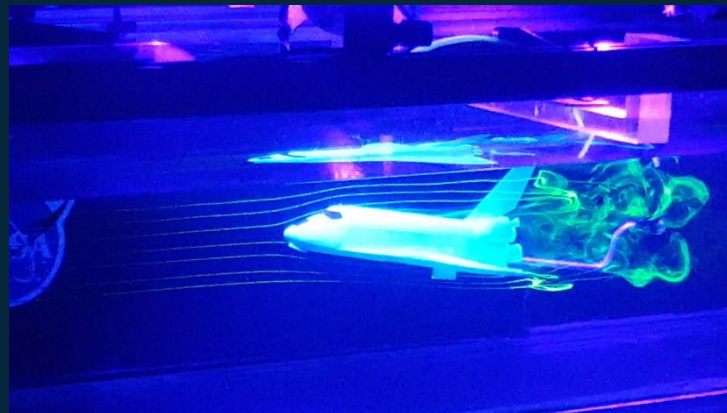
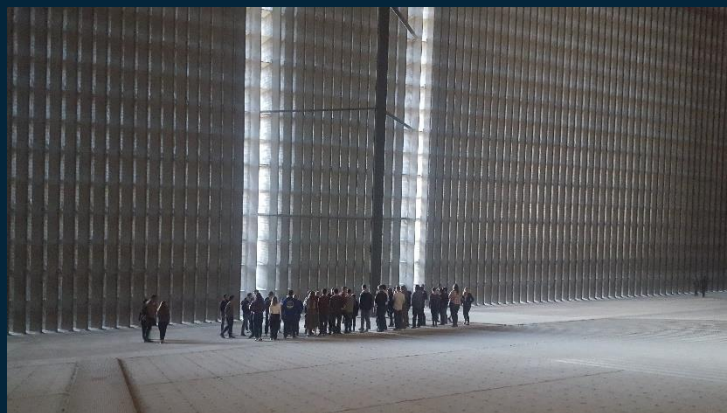


Cool Stuff: Aircrafts





Cool Stuff: NASA Centers



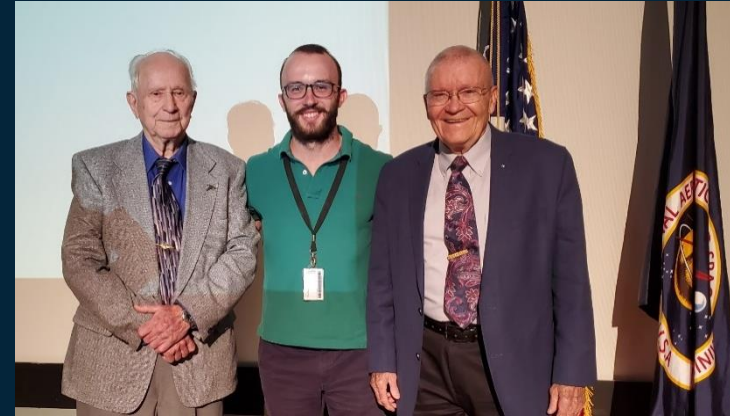


Cool Stuff: California





Cool Stuff: Astronauts





Acknowledgements

AFDP Team

AFRC Interns

Albion Bowers

Angel Guilloty

Billie Redd

Brian Ambelis

David Tow 🚢

Dayana Contreras

Hani Safi

Kylie Vandenson

Lisa Illowsky 🚢

Manny Castro

Maria Caballero

Mariela Ortega

Matthew Berry

Melissa Newell

Mike Ritchson 🚢

Noah Edwards

Ryan Connelly

Shideh Naderi

630 Sim Team



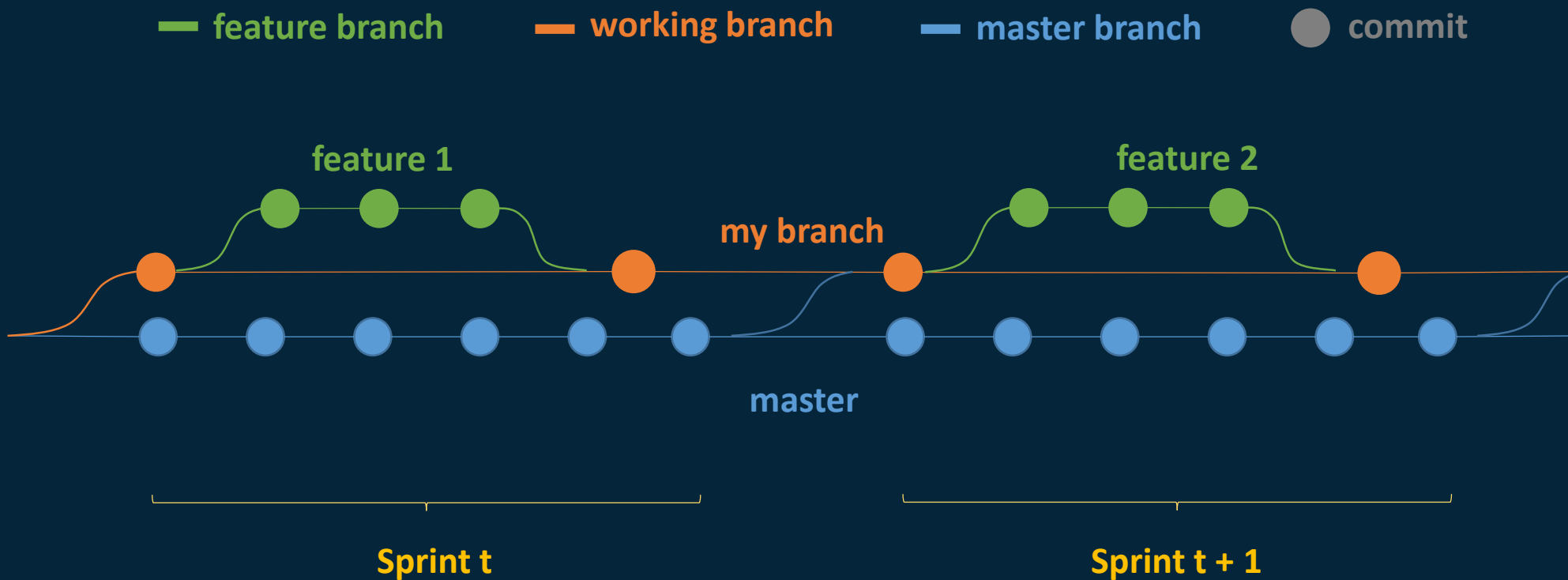
Questions?



Extra Slides



AFDP Overview: Version Controlling

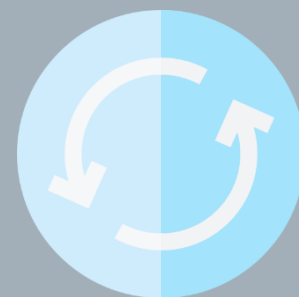




Background Info



20



3



10



>1.5K



AFDP Overview: Technologies Used

JavaScript

HTML

CSS

XML

Xquery

Git

Java

Jira

Bitbucket

Jquery

Bootstrap

Java Server Faces

Netbeans

eXist

FishEye

TomEE

Docker

Portainer



AFDP Overview: Technologies Used

JavaScript

HTML

CSS

XML

Xquery

Git

Java

Jira

Bitbucket

Jquery

Bootstrap

Java Server Faces

Netbeans

eXist

FishEye

TomEE

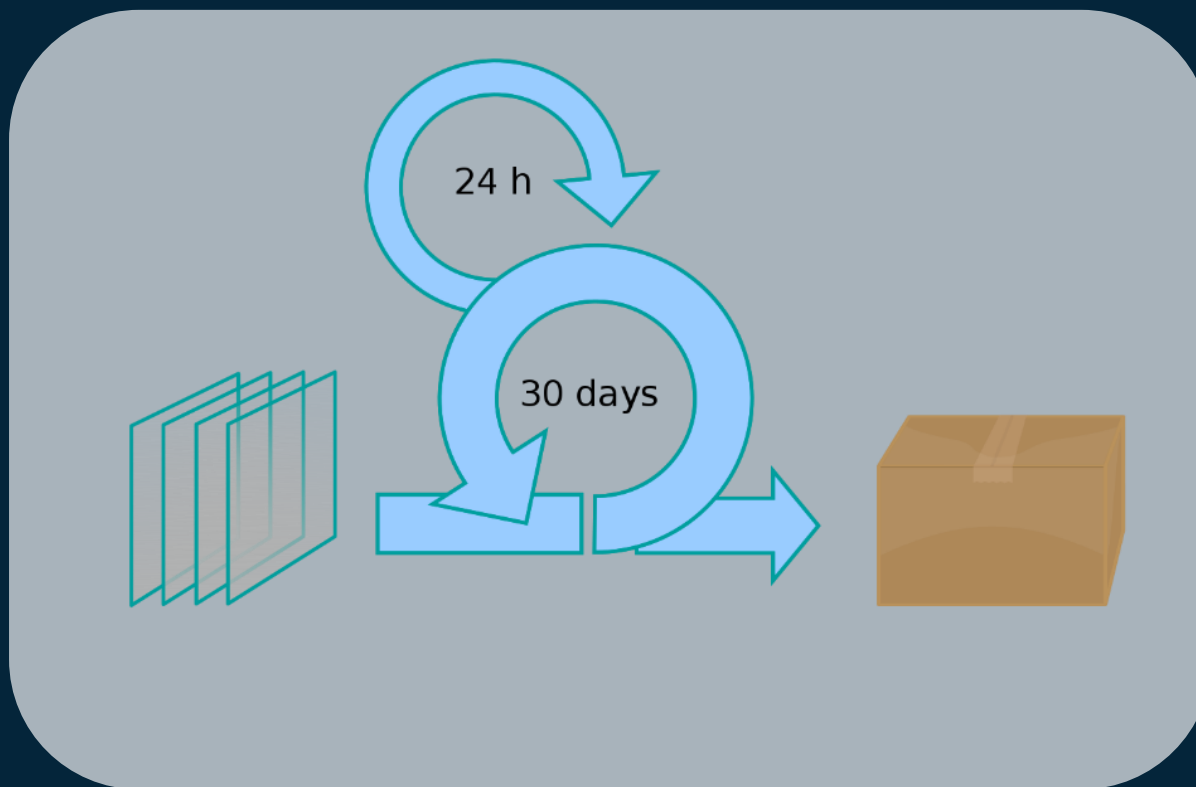
Docker

Portainer



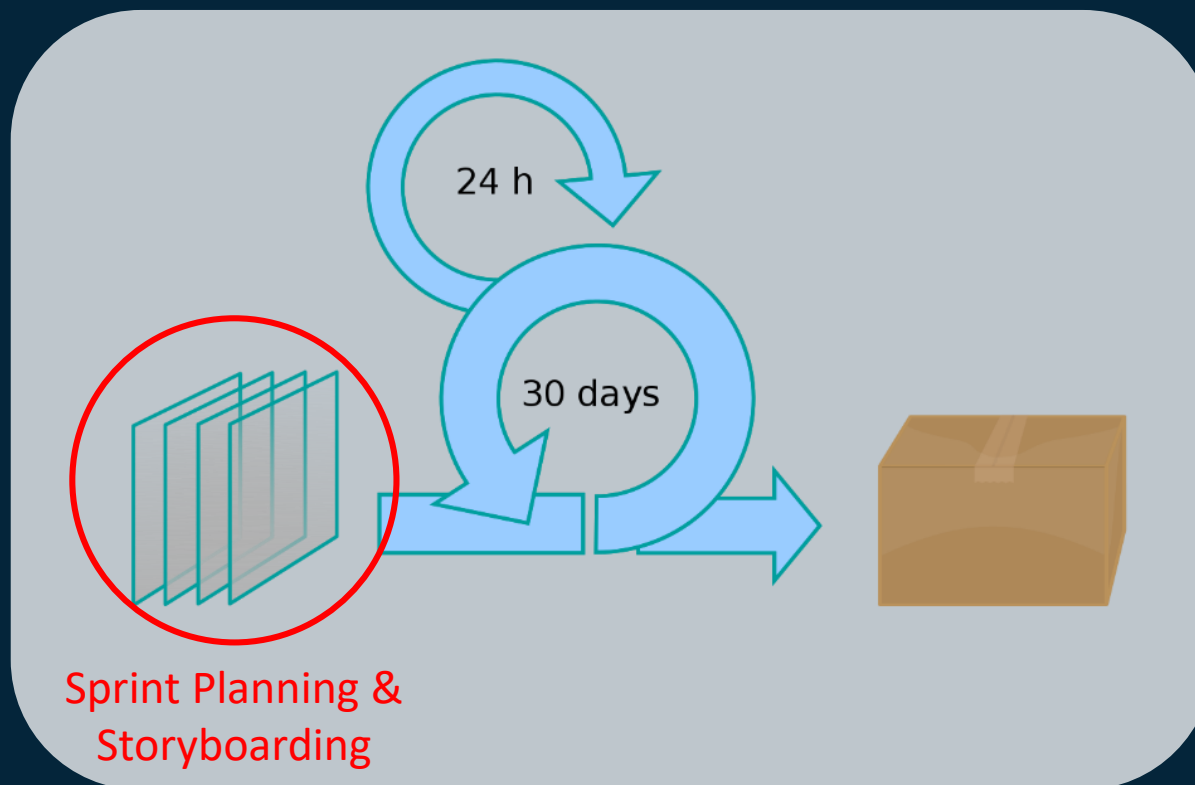


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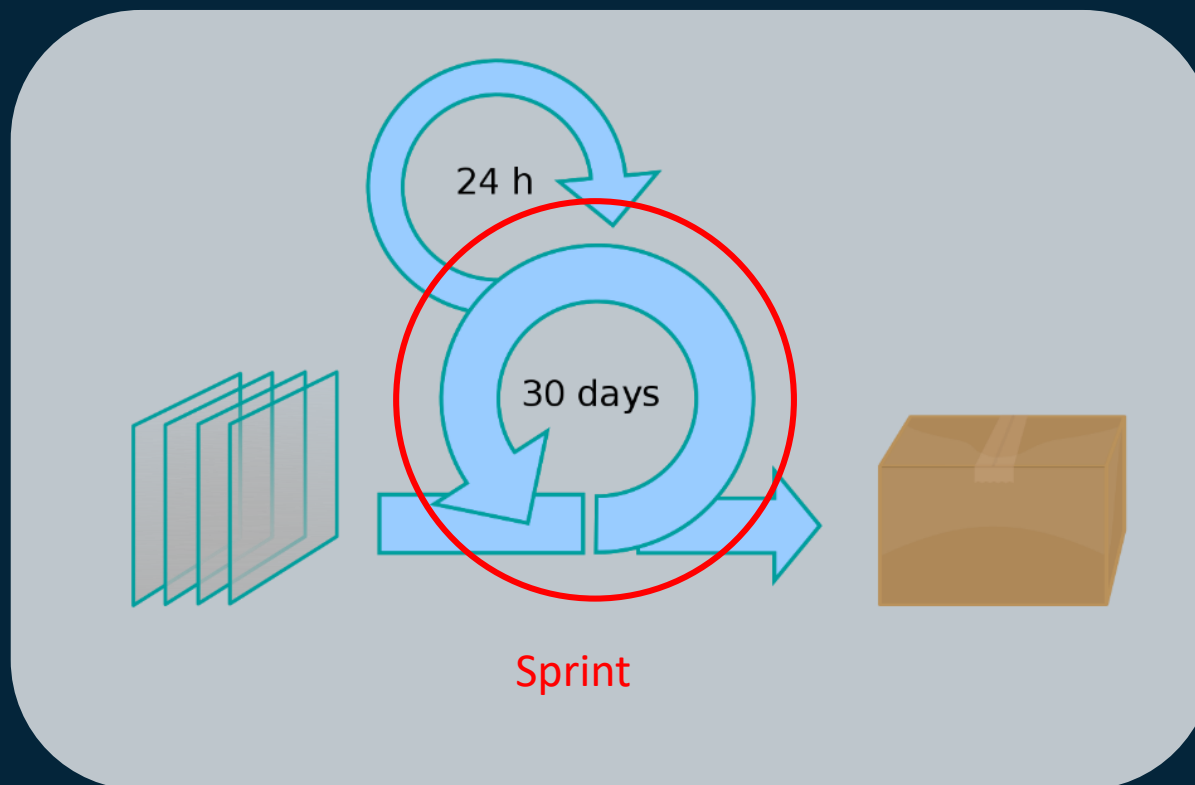


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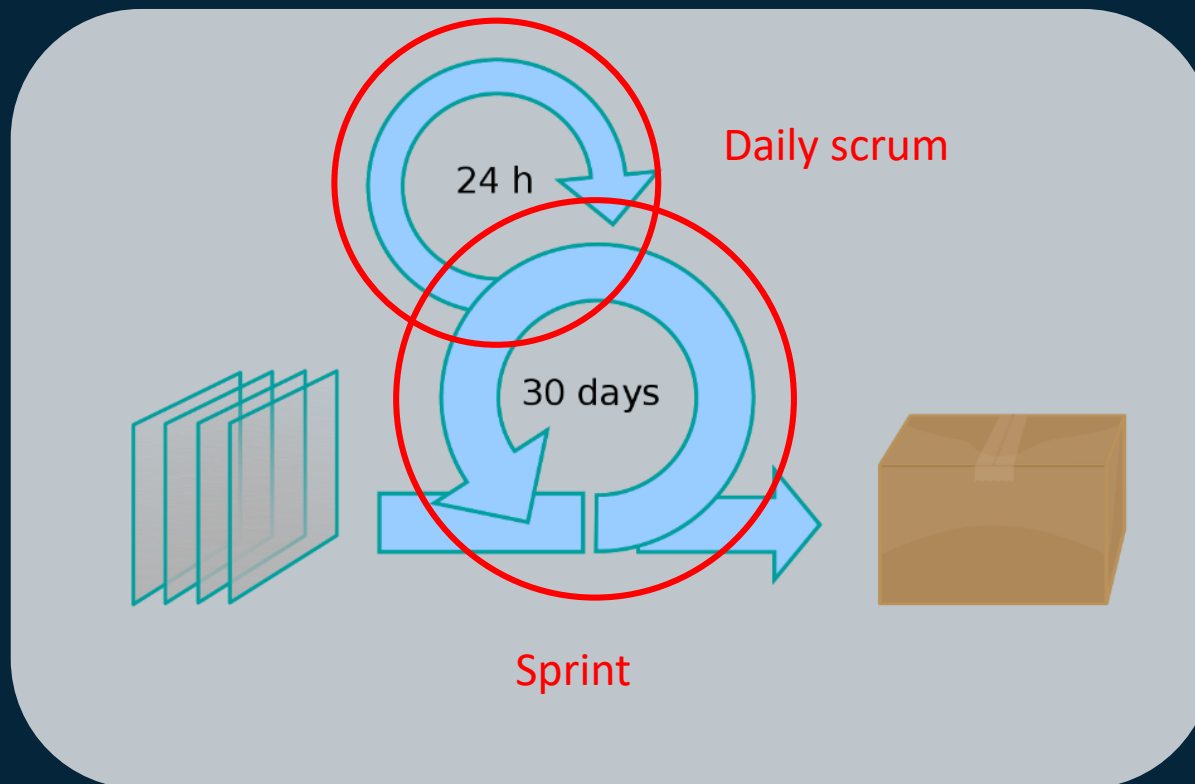


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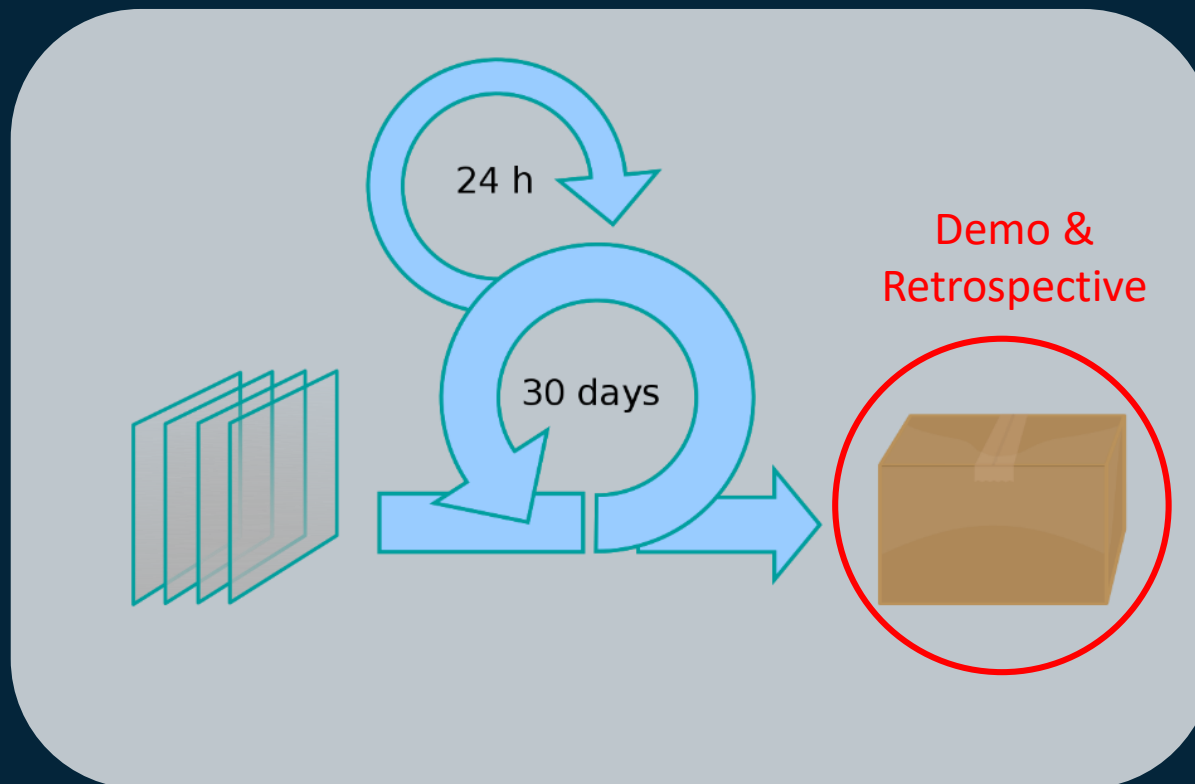


Background Info





Background Info





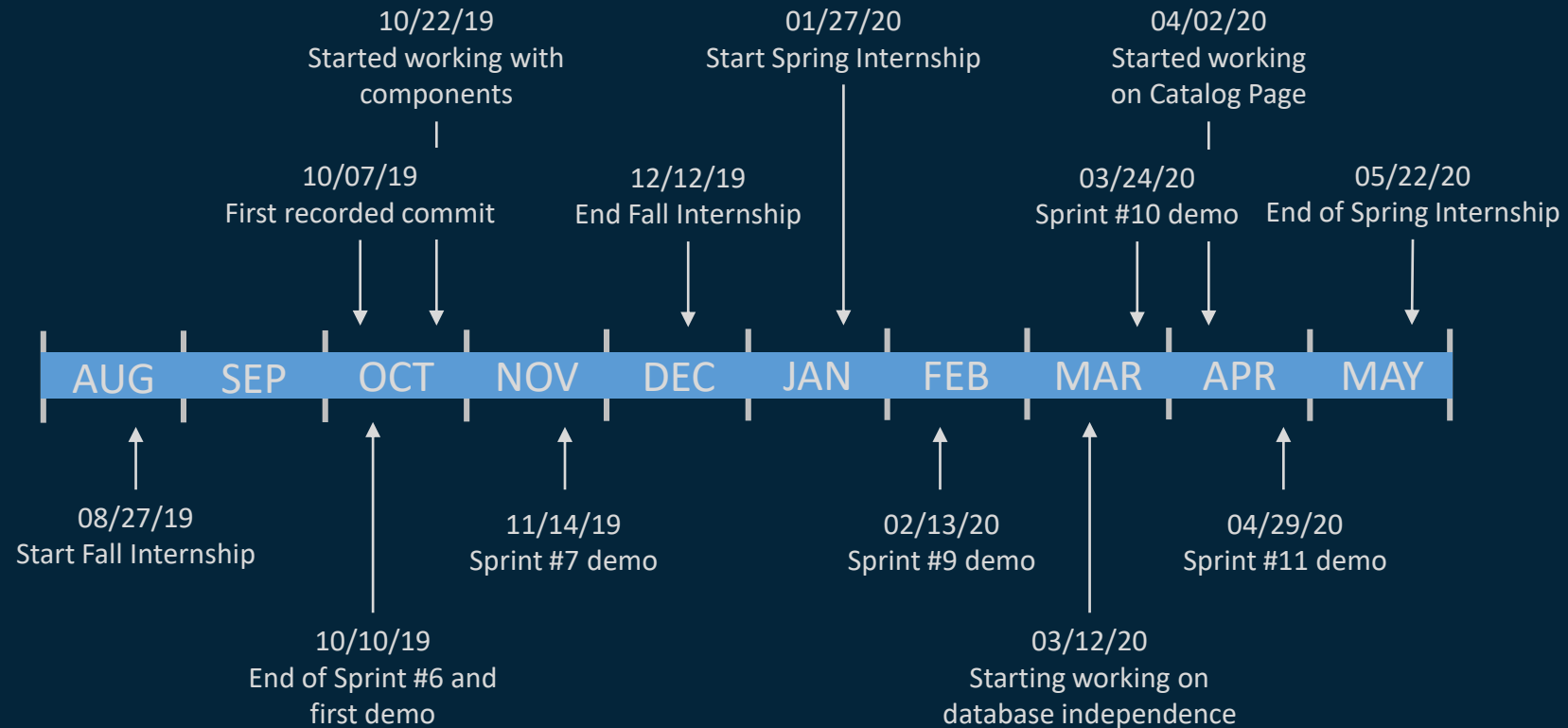
Objective

AFDP



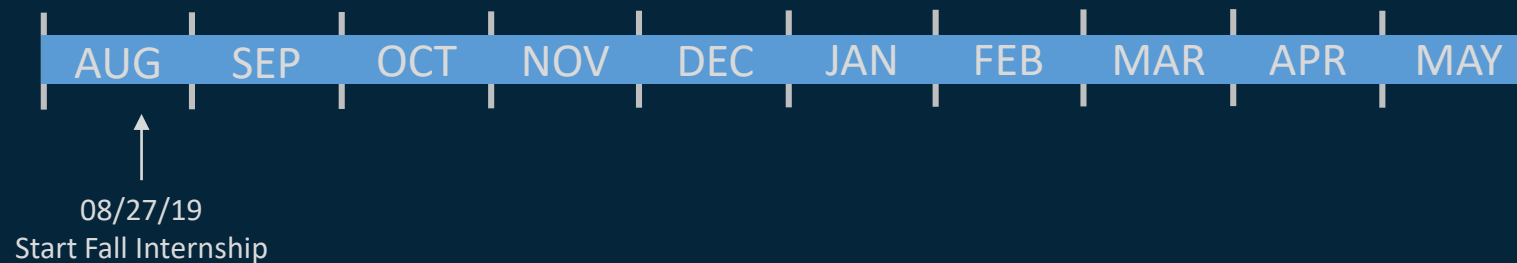


Work: Timeline



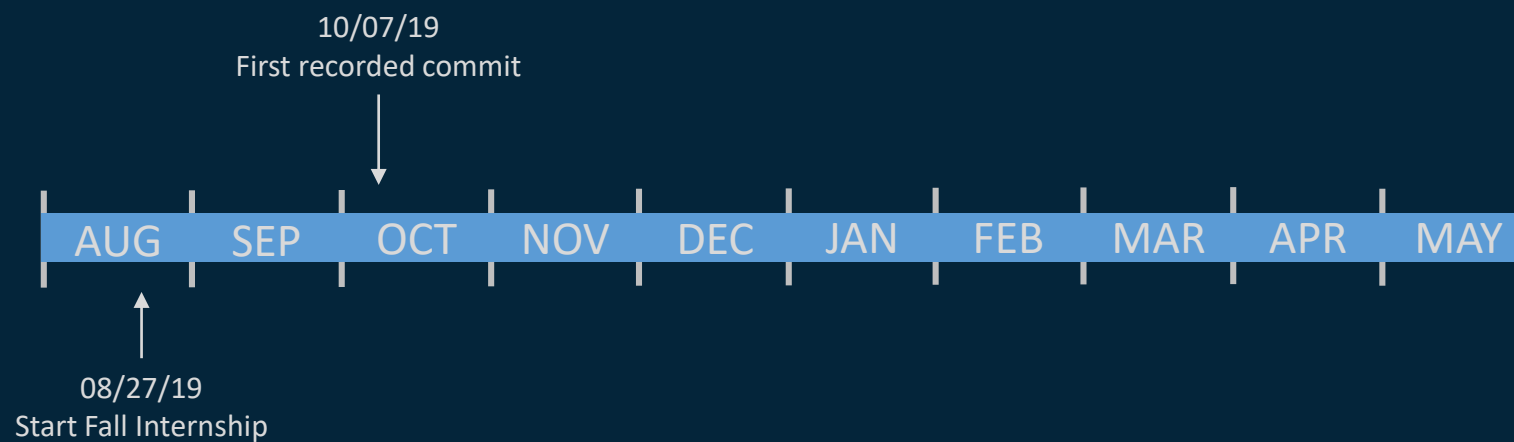


Work: Timeline



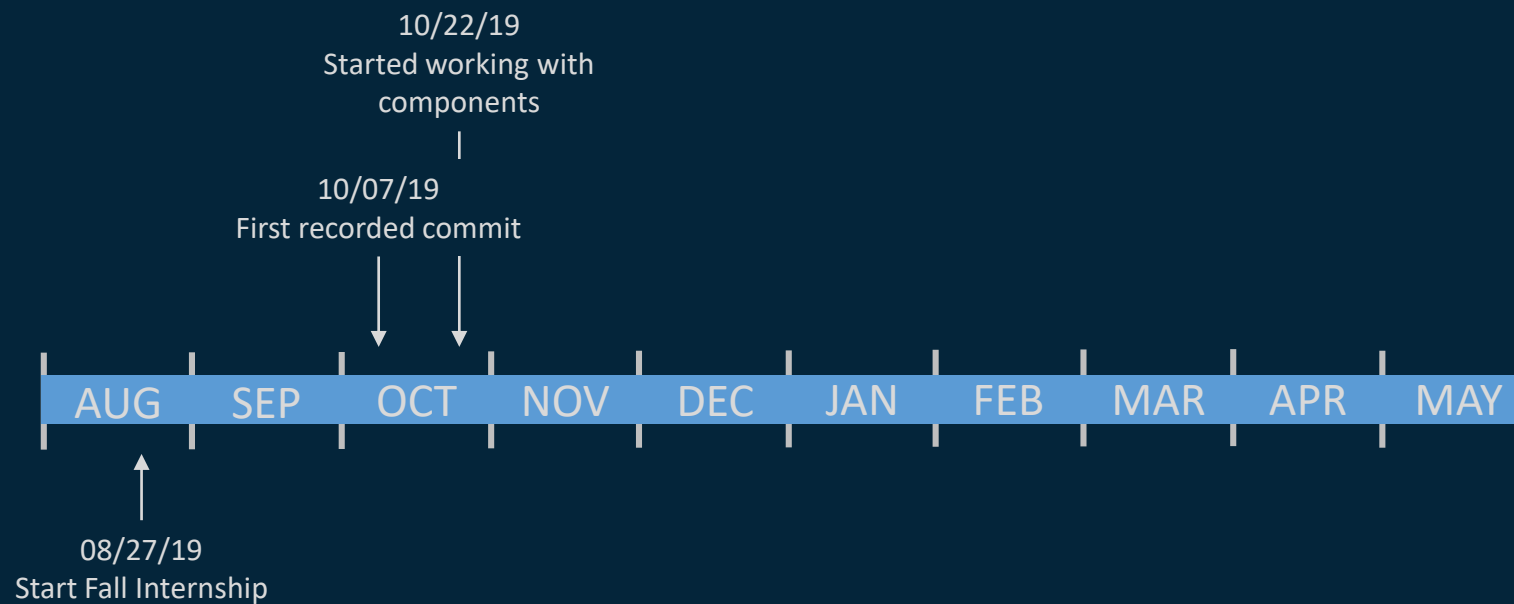


Work: Timeline



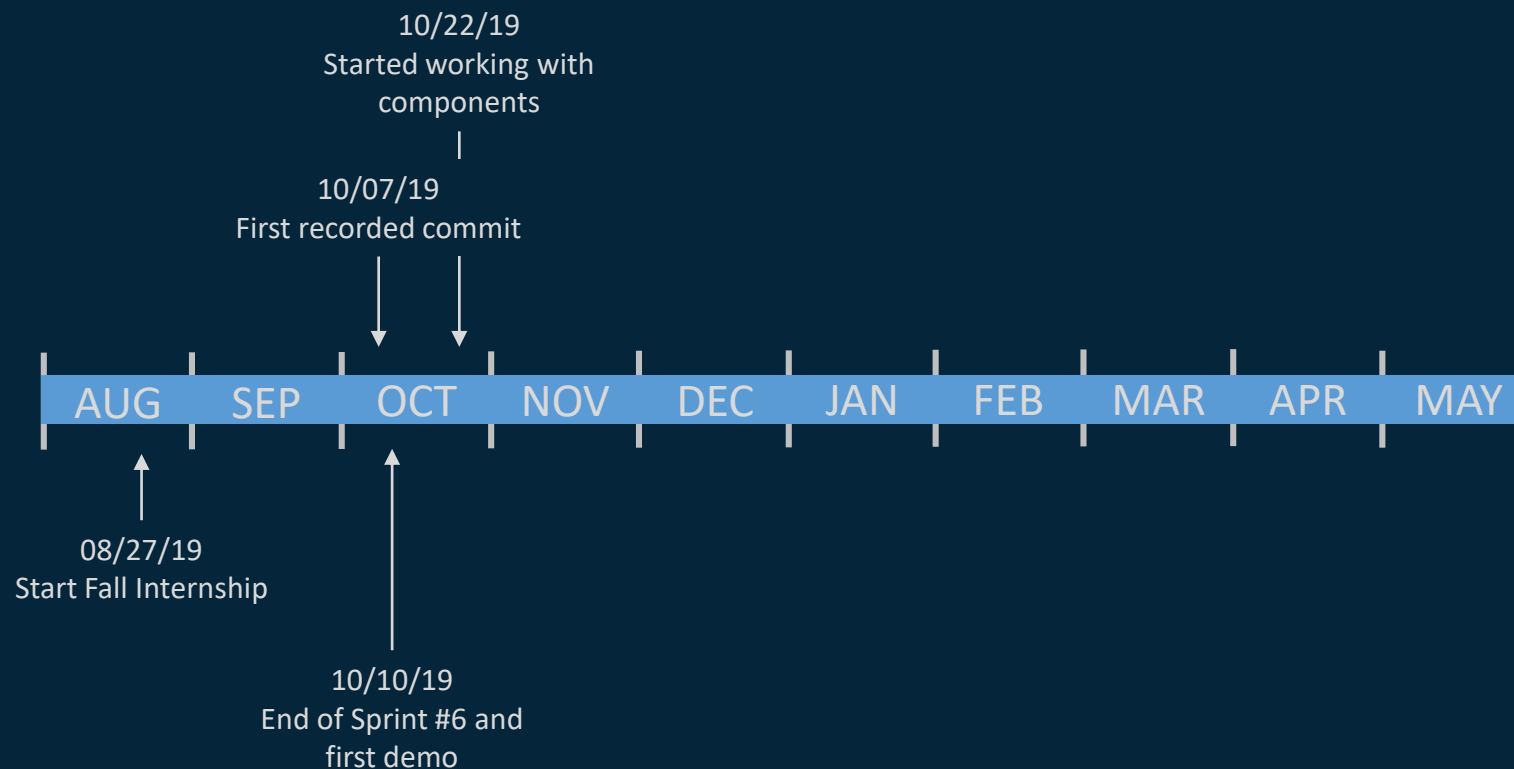


Work: Timeline



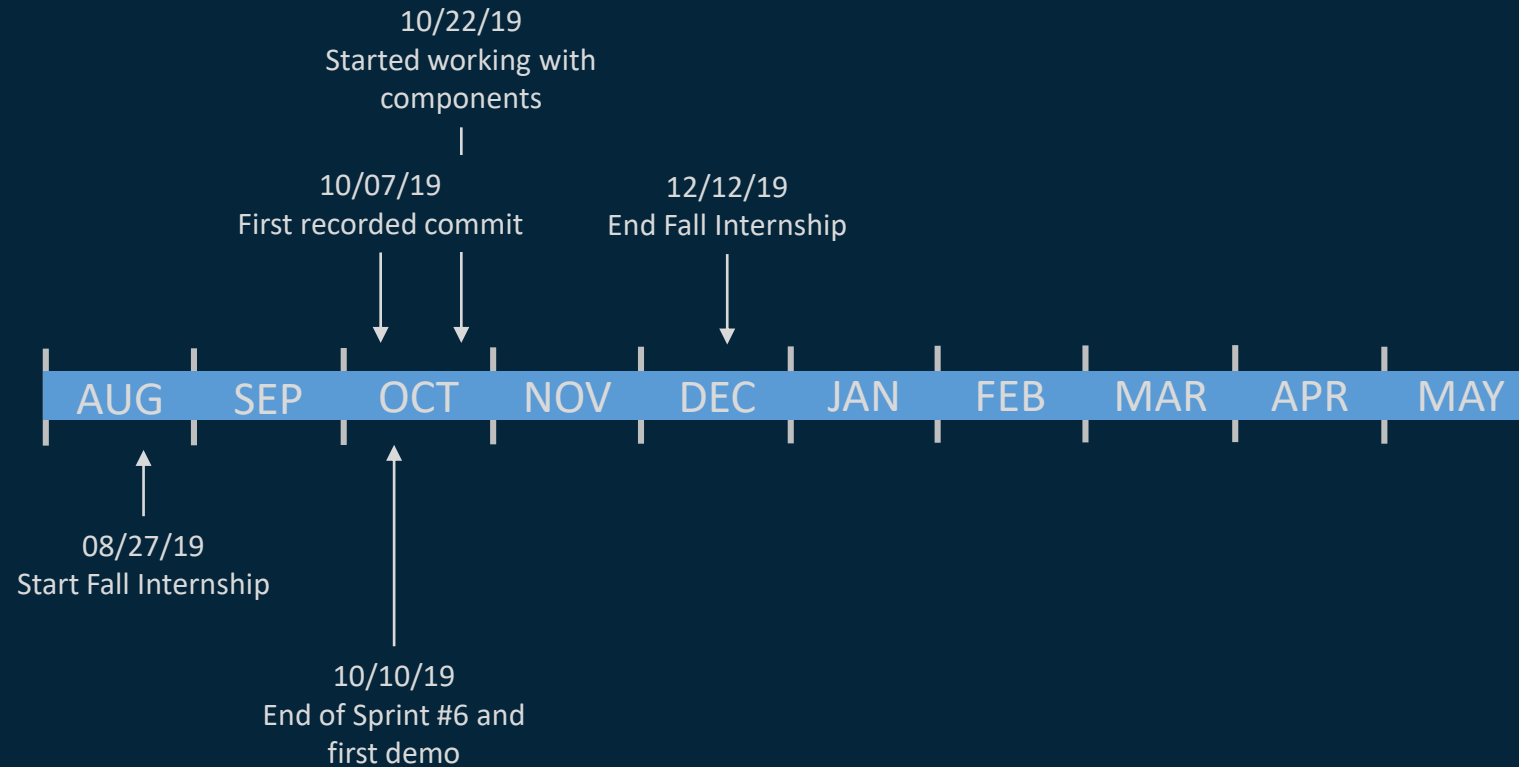


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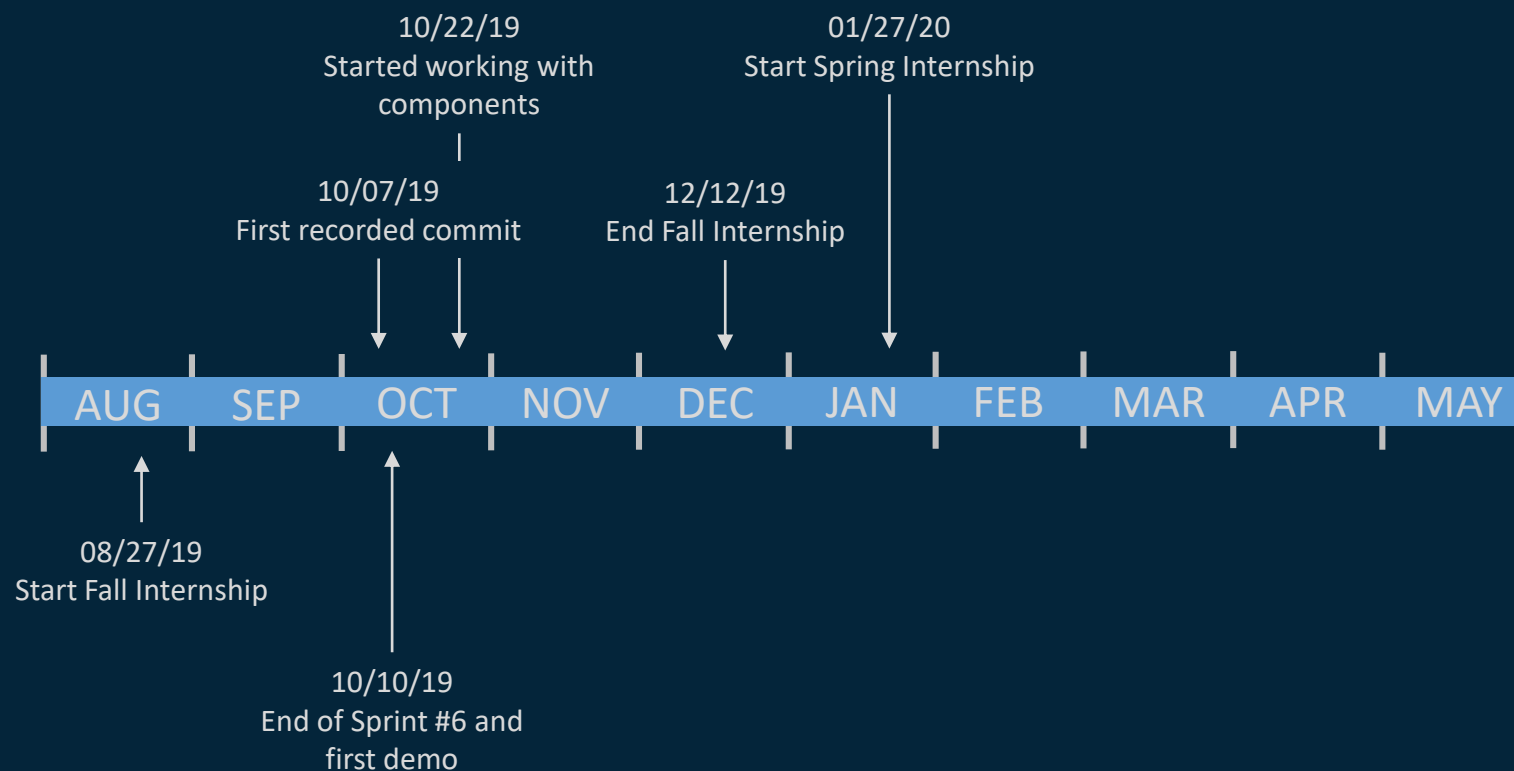


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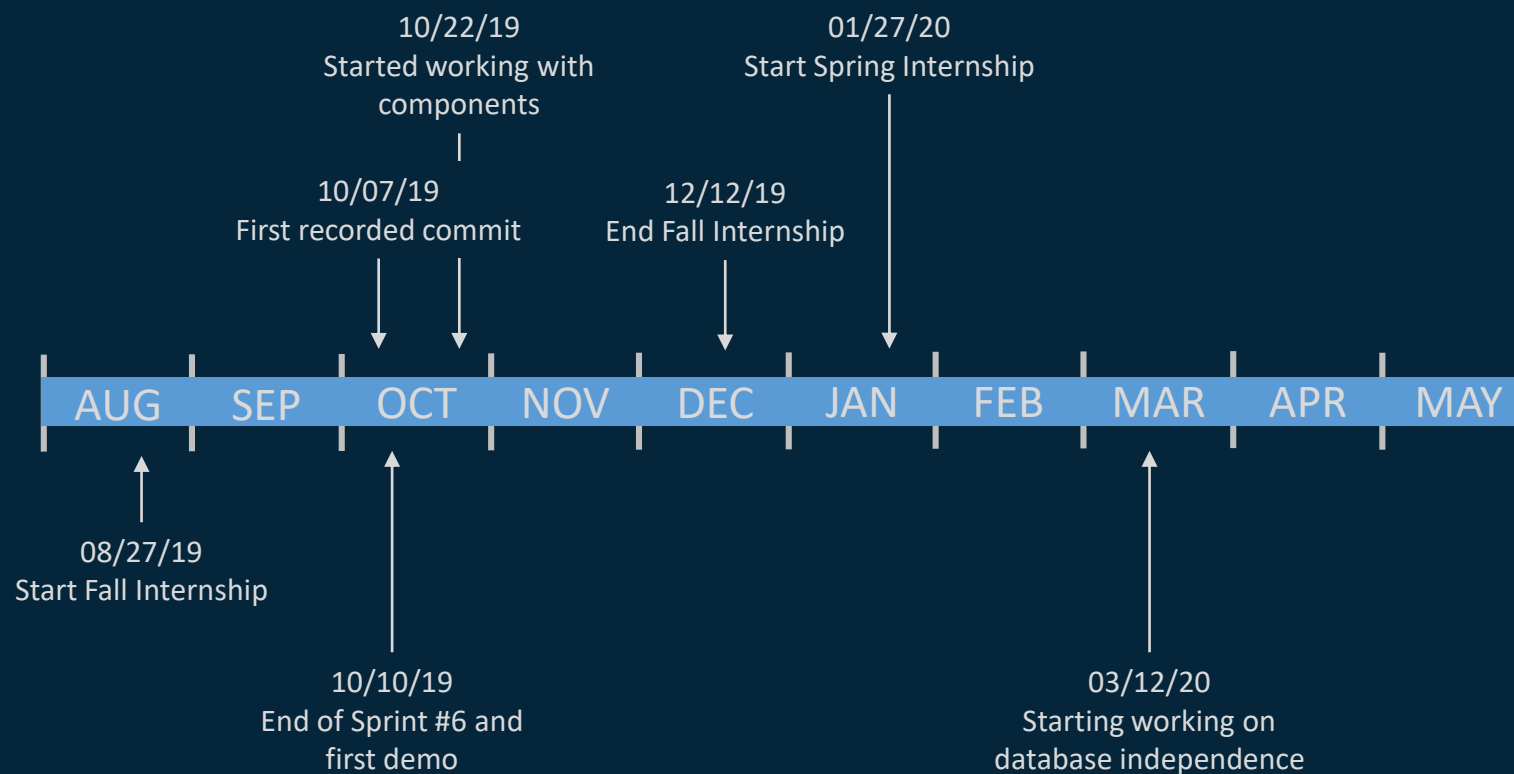


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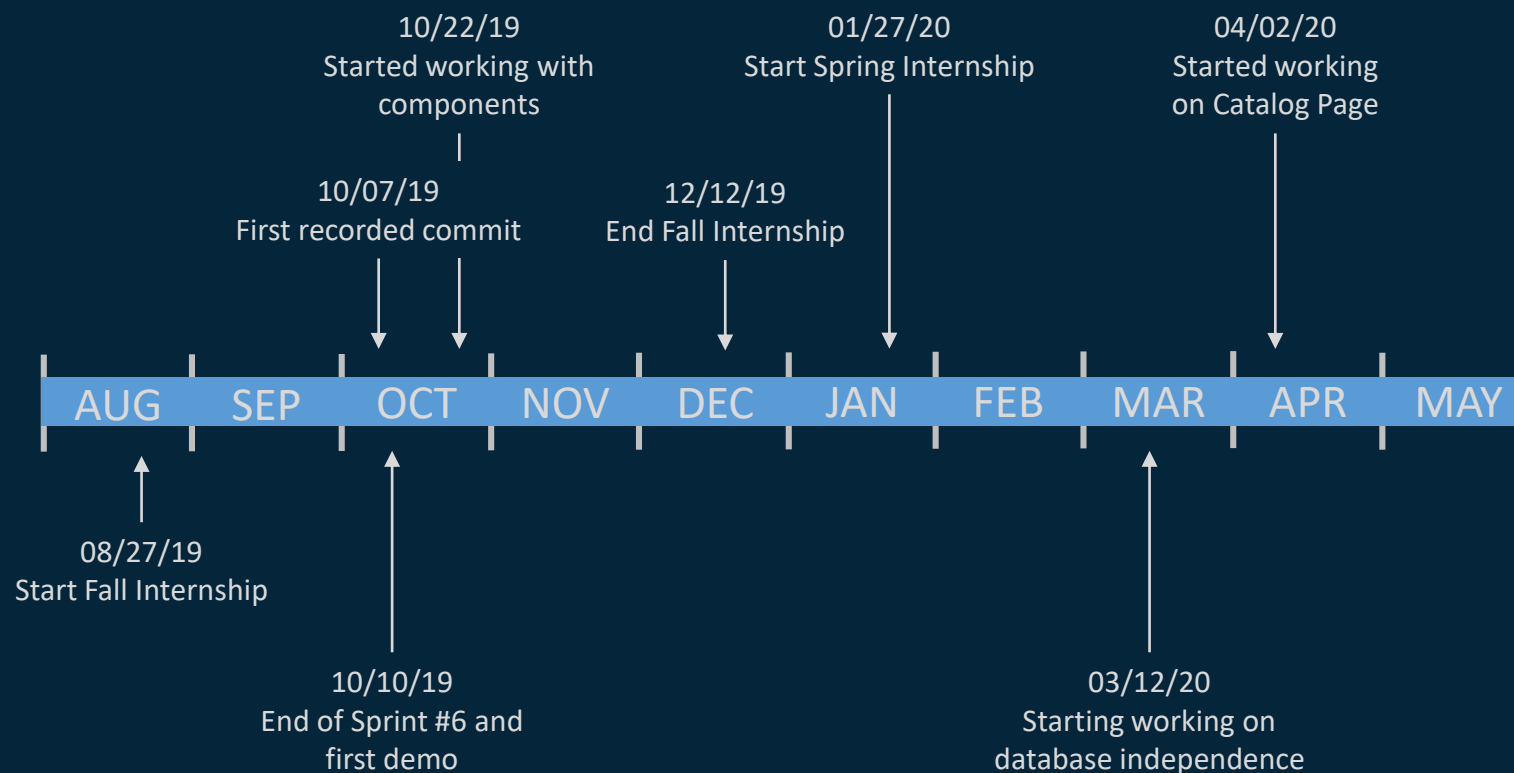


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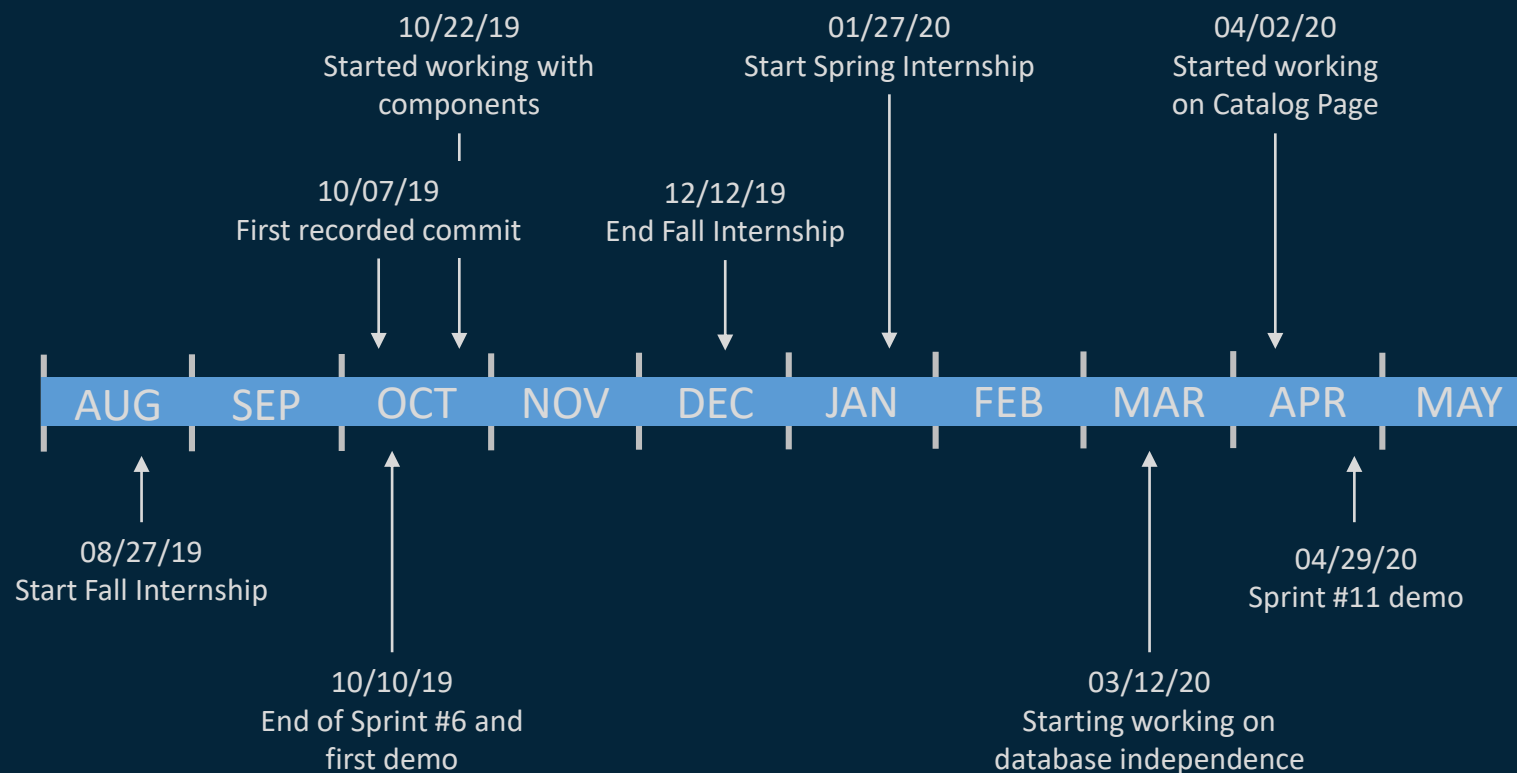


Work: Timeline



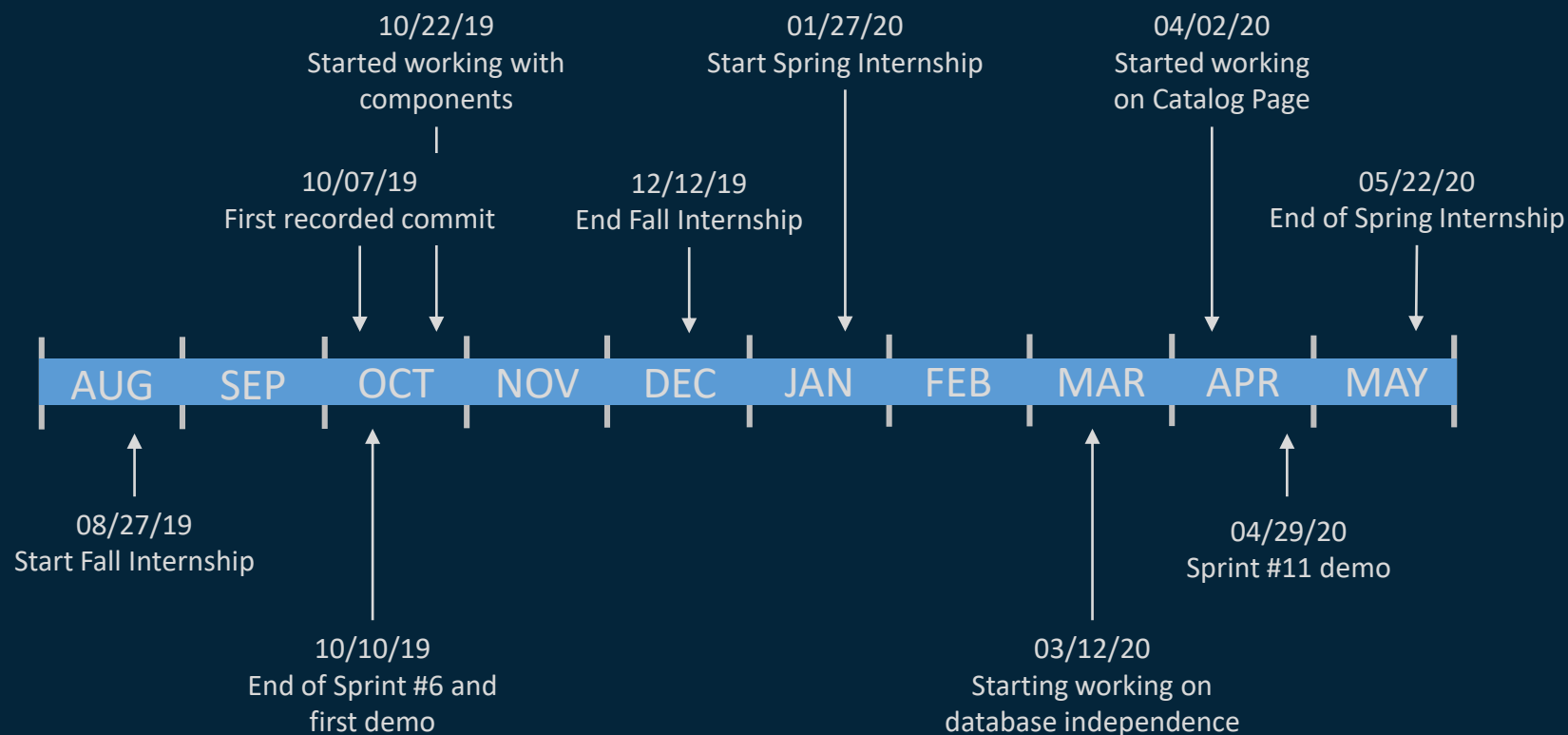


Work: Timeline



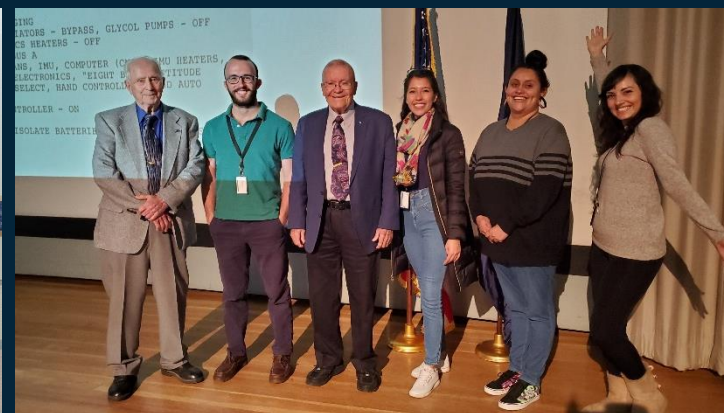


Work: Timeline





Internship Experience





Internship Experience

