

# CPRE 492 WEEKLY REPORT 17

*Project Molecule*

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May1739

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## 2 WEEKLY SUMMARY

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This week we worked on the structure for the routing algorithm and how to integrate rooms within our existing framework.

We each did individual work.

We scheduled our demo for March 10<sup>th</sup> at 1pm.

## 3 PAST WEEK ACCOMPLISHMENTS

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All Members:

- Discussed Routing
- Created an alternative approach to rooms
- Thought about mutexes and deadlock

Ryan Wade:

- Worked more on the communication manager
  - Send/Receive messages
  - Encryption/Decryption

Nathan Volkert:

- Worked further on the console app
  - Updated to specifications
  - Adding/Removing Packages

Daniel Griffen:

- Worked on theory of rooms, meetings, and communication

Alex Berns:

- Worked on form builder
- Learned how to use the UI language we designed

## 4 INDIVIDUAL CONTRIBUTIONS

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NAME	Hours	Semester Total	Cumulative
Ryan Wade	15	48	168
Nathan Volkert	13	40	142
Daniel Griffen	6	41	175
Alex Berns	17	49	148

## 5 COMMENTS AND EXTENDED DISCUSSION

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### 5.1 ROOMS AND NAMESPACES

Each app will use its name as the namespace for meetings since each app will have its own meetings to track changes.

Action	String
Routing	Any All Some One
Action Data	Bin Code
Routing Status	struct
Type	Data, Data Stream, Synchronized Data

### 5.2 ROUTING

- Any = any single node
- All = Everyone
- Some = k number of nodes
- One = specific single Device

	<b>Any</b>	<b>All</b>	<b>Some</b>	<b>One</b>
<b>Device</b>	x	x	x	x
<b>Particle (All Layers)</b>	x	x	x	x

## 6 PLAN FOR COMING WEEK

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For the coming week each member will be continuing from where they left off. Ryan will be working further on the connection and particle managers and coordinating with Dan. Daniel will be working to combine work of other members with Ryan on the managers and Nathan on permissions. Nathan will add some finishing touches to the console app and will be working on the permissions layer. Alex will be populating the flat view with data and further work on the form builder.

## 7 SUMMARY OF WEEKLY ADVISOR MEETING

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Discussed our simplification of rooms

Nat did demo for adding and removing files. This will allow us to add or remove apps. Nat will work on permissions next.

Connection Manager is proving difficult:

- Multithreaded handlers? Futures?

- Concurrency and sharing data is important concern

Connection manager ends up running the particle process.

### 7.1 PERMISSIONS DISCUSSION

Permissions established at install

Can Permissions be changed at runtime? Possible problems:

- Active User prompt: (allows popup to change app)

  - > App spamming user with permission requests

  - > user only has to decline once?

- Static UI Notification (tell user to change in settings)

  - > takes more time

Could also do like Android, only give permissions when they are needed.

  - > But coffee maker problem, coffee maker has to ask to make coffee before it starts and tired person is angry.