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1 Meeting 9 Aug 11:30am

Location: ATC Project Rooms

1.1 Present

- Alex Cummaudo
- Jake Renzella
- Lachlan West
- Reuben Wilson

1.2 Agenda Items

1. Debrief of changes over holiday
2. Possible alterations to design
3. Discuss what has been completed
4. Discuss what needs to be done next

1.3 Discussion, Decisions and Agreements

1.3.1 RE: 1. Debrief of changes over holiday

- During the break Andrew Cain, Alex, Jake and Lachlan discussed breaking down the project into three phases:
 1. First iteration is an asynchronous system with which tutors can use the ticketing system from the helpdesk terminal
 2. Second iteration is to make the web front-end more mobile-friendly so that staff can use the ticketing system directly from their smartphones. Possible to get the first two done together if working in a mobile-first development scheme.
 3. Third iteration is to look into developing smartphone applications with an synchronous, event-driven API
- Andrew Cain discouraged iOS/Android apps as it will be considered hard to maintain with the app cycle
- Keep the design integrated into the existing web system

- Andrew can then maintain and upkeep this
- Developing through the Apple App Store/Google Play Store is a long process and will require future bug-releases which will be hard to push to all users
- If we maintain the single system it will be easier to develop and push changes once our team has finished the project without much overhead for other developers
- Dropping the synchronous event-driven micro service until phase 3

1.3.2 RE: 2. Possible alterations to design

- We probably don't need a queue at all and thus don't have a need for a separate server. Instead we sort all tickets by a date/time field.
- Refer to the Trello board, specifically these two cards:
 1. Rethink Backend Implementation¹
 2. Public Doubtfire Ticketing²
- We need to add a **Helpdesk** dropdown menu. Let's use **fa fa-support** for the icon:

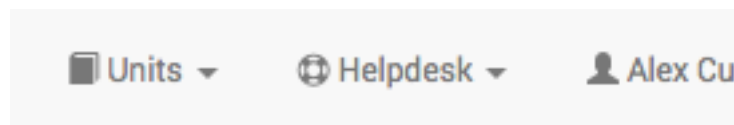


Figure 1: Helpdesk Dropdown

- If I am a student in a unit, I should see **Create a Ticket if I don't currently have a ticket open**. This would then open the **Create a Ticket** Modal.
- If I teach a unit, I should see **Clock On** or **Clock Off** (depending on if I am already clocked on or not). This would then open the **Clock On/Clock Off** modal:
- I should always be able to view the helpdesk status. This would take me to the **Helpdesk Dashboard**.
- Modals used to create new tickets and clock on/clock off staff members

¹See <https://trello.com/c/vKMN6hvN/47-rethink-doubtfire-backend-implementation>

²See <https://trello.com/c/qZJ2j4zQ/65-public-doubtfire-ticketing>

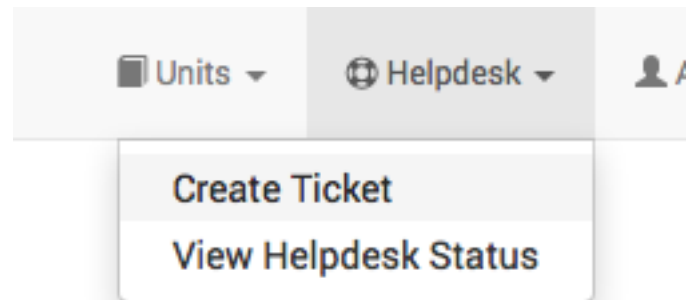


Figure 2: Create a ticket

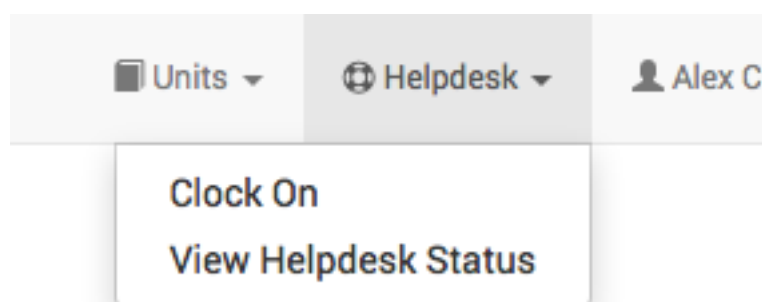


Figure 3: Clock on

- Only issue becomes authentication vulnerabilities:
- If we are using the helpdesk terminal in phase one, one staff member needs to login. E.g., Fred logs in so that the dashboard is live. Then when Jane resolves a ticket, she is resolving it under Fred's account. Vulnerability for abuse.
- Andrew has discussed the idea of each staff member having a unique PIN to authorise helpdesk transactions
- But for initial phases this isn't really necessary as each helpdesk user is most likely genuine

1.3.3 RE: 3. Discuss what has been completed

- Jake and Alex have been coming in most of the holidays to work on the API
- New models include `HelpdeskTicket` and `HelpdeskSession`.
- `HelpdeskTicket` refers to a single helpdesk ticket that a student creates. It consists of:
 1. A required project (i.e., unit the student needs help with)
 2. An optional task definition (optional because they might need help with just setting up their computers, a common question asked in the initial weeks)
 3. A description of what they need help with
- `HelpdeskSession` refers to the session by which a staff member works at the helpdesk. It consists of:
 1. The time the staff member clocks onto the helpdesk (always the current time of creation)
 2. The *estimated* clock off time (estimated in case a staff member needs to leave immediately)
 3. The id of the user who clocks on and clocks off
- Endpoints for these can be found in swagger on the branch `new/helpdesk-ticketing`³, which include:
 - **GET** `/api/helpdesk/tickets` Gets all helpdesk tickets
 - **POST** `/api/helpdesk/tickets` Add a new helpdesk ticket
 - **GET** `/api/helpdesk/tickets/{id}` Gets helpdesk ticket with an id

³See <https://github.com/final-year-project/doubtfire-api/tree/new/helpdesk-ticketing>

- **PUT** /api/helpdesk/tickets/{id} Updates helpdesk ticket with an id
- **GET** /api/helpdesk/sessions Get helpdesk sessions
- **POST** /api/helpdesk/sessions Begin a new session at the helpdesk as current user
- **DELETE** /api/helpdesk/sessions/{id} Prematurely clock off an existing helpdesk session
- **GET** /api/helpdesk/sessions/tutors Get a list of all currently tutors working at the helpdesk
- **GET** /api/helpdesk/stats Gets statistics about the helpdesk for the duration specified
- Alex went over each of the above

1.3.4 RE: 4. Discuss what needs to be done next

- Unit testing for API is still needed. Discussed that Jake would probably be best as he knows the most on the unit testing framework.
- Web front end, with specific changes:
 1. Helpdesk Dropdown Menu in header bar
 2. Create a ticket modal
 3. Clock on/clock off modal
 4. Helpdesk Dashboard
- Usability testing
- There should be some form of usability testing with mockups on what the helpdesk dashboard should look like
- The other web front-end features are basic form entry and shouldn't require much usability testing
- Will need to ensure that the dashboard is clear and easy to read and understand
- There will need to be some investigation into graphically representing statistics
- Alex will come up with some cards for these tasks, to be worked on by Reuben and Lachlan
- Jake and Alex will maintain and improve the API as the semester goes on
- Follow up with Andrew Cain regarding PIN entry

1.4 Agenda Items For Next Meeting

1. Progress update from Lachlan and Reuben on work they have carried out

1.4.1 Follow Up Actions

1. **Alex - ASAP** - Create Trello Cards
 2. **Alex - ASAP** - Organise another weekly meeting for next week
-

2 Meeting 9 Aug at 1:00pm

Location: Graham's office

2.1 Present

- Alex Cummaudo
- Jake Renzella
- Lachlan West
- Reuben Wilson
- Graham Farrell

2.2 Agenda Items

1. Feedback from last semester
2. Required documentation this semester
3. Regular meetings

2.3 Discussion, Decisions and Agreements

2.3.1 RE: 1. Feedback from last semester

- Touch base on where we are at from last semester
- Graham was happy with our work
- Think we did well under the circumstances

2.3.2 RE: 2. Required Documentation

- Continue on project plan from last semester
- Make changes as we see fit
- **Graham needs something tangible**
- Do a lot for the usability testing!
- We will know more come Friday's lecture

2.3.3 RE: 3. Regular meetings

- Graham particularly busy this semester
- Best if we arrange meetings on Tuesday around midday
- Touch base every couple of weeks
- Alex to send him progress updates in dot points weekly

2.4 Agenda Items For Next Meeting

1. Progress updates

2.4.1 Follow Up Actions

1. [Alex] - [Next Wednesday] - Send Graham a progress update after about a week or so
2. [Alex] - [ASAP] - Prepare wiki for Semester 2

3 Meeting 16 Aug 12:00pm

Location: ATC Project Rooms

3.1 Present

- Alex Cummaudo
- Jake Renzella
- Lachlan West
- Reuben Wilson

3.2 Agenda Items

1. API additions
2. Progress Update on UI
3. Wireframes and Ticket Directive Design

3.3 Discussion, Decisions and Agreements

3.3.1 RE: 1. API additions

- Reuben has implemented ticket API endpoint to return all tickets by one student. This endpoint is 'GET /helpdesk/user/:user_id/ticket
- The intended use for this comes from Andrew Cain: **Students shouldn't be able to post a new ticket to the helpdesk if they have already got a ticket open.**
- Reuben has submitted a PR for code review on new API endpoint into `new/helpdesk-ticketing`.
- Alex will code review the PR
- New functionality includes an added a shallow serializer for getting tickets which Andrew Cain suggested.
- Alex suggested that the response back from the database should sort the tickets based on ascending time order
- Reuben will look into this
- Lachlan has asked how to modify the serialiser which Reuben will help based on his recent learning
- Still missing are unit tests
- Jake can assist with writing these unit tests
- Alex suggested that we prevent POSTing a new ticket if a student has already got a ticket open. This needs to be added.
- Jake suggested wrapping the model functionality into the model file, not the API file
- This way we can reuse the same functionality in both the POST and GET endpoints
- Notes for code review:
- Remove new endpoint and use `GET /helpdesk/ticket` with `filter` query parameter

- Add `user_id` parameter to this endpoint - achieves the same functionality
- Don't have model code in API code
- Usage would be `GET /helpdesk/ticket?user_id=1&filter=unresolved`

3.3.2 RE: 2. Progress update on UI

- Modal is coming along nicely
- Caching information may be a cause for concern
- If a user refreshes the browser, do they need to send a new API request?
- Instead, couldn't we just cache what we know
- Either wrap this in the API file or cache with angular cookies
 - Use unit-service as model for caching tickets - don't write them in services however as this model is deprecated
- Discuss this with Andrew first
- Functionality is needed over 'niceness'!
- Lachlan will finish the modal first
- Need to begin working on `Tickets Opened` modal
- Show this in the dropdown menu when a ticket is opened
- When tickets are open, we should eliminate units from dropdown who have open tickets under the `Create Ticket` modal

3.3.3 RE: 3. Wireframes and Ticket Directive Design

- Create a `<helpdesk-ticket>` directive
- Takes in the `ticket-id="123"`
- The directive can make the API request, showing a spinner during the request
- We can reuse the ticket on the dashboard as well as in the new "Tickets Opened"
- Initially, we can use a BS `.well` class to show ticket information
- Ticket to show brief information under expandable accordion, such as:
 - Student name
 - Unit (and optionally the task)
 - Student target grade
 - Time ticket was opened
 - How long the ticket has been opened for

- Can think of more later...
- Use `if-role` attribute directive to check the role for viewing tickets
- When `if-role='Tutor Convenor Admin'`, we can show the **Resolve** button
- When staff click resolve, on ticket ask who is resolving ticket from active tutors at helpdesk
- Don't worry about CSS too much for now.

3.3.4 Additional Items

- Alex and Jake will make wireframes for the dashboard design
- How does a tutor clock on and off from HD?
- On Trello, there is a card with details

3.4 Agenda Items For Next Meeting

1. Progress review
2. Organise another meeting with Andrew and Graham

3.4.1 Follow Up Actions

1. **Reuben - ASAP** - Sort the tickets by date created in endpoint
2. **Reuben, Lachlan - ASAP** - Get together and show Lachlan how to modify serialiser
3. **Jake, Reuben - Once PR has gone through** - Write unit tests for the endpoint
4. **Alex or Reuben - After code review** - Write a way that prevents students from POSTing a ticket if they already have a ticket open
5. **Reuben or Lachlan - ASAP** - Begin working on **Tickets Opened** modal
6. **Reuben or Lachlan - ASAP** - Remove units from dropdown if it has a ticket opened
7. **Reuben and Lachlan - Start soon** - Create a `<helpdesk-ticket>` directive (see minutes)
8. **Alex - 16 Aug** - Code review
9. **Reuben, Lachlan - Planning later soon** - Sessions modal

4 Meeting 23 Aug 11:30am

Location: ATC Project Rooms

4.1 Present

- Alex Cummaudo
- Jake Renzella
- Lachlan West
- Reuben Wilson

4.2 Agenda Items

1. Update on Ticketing System implementation
2. Dashboard UI Prototype
3. Usability Testing
4. Timeline for the coming weeks

4.3 Discussion, Decisions and Agreements

4.3.1 RE: 1. Update on Ticketing System implementation

- Velocity on the UI has stalled a bit
- Reuben and Lachy having bit of trouble with the foundations
- Alex suggested to take over development for a week
 - Build the bare-bones foundation so that Lachy and Reuben can build upon it
 - Aim to have the modals done, and have the states laid out
 - Changes would be to enhance quality, make it more functional
 - Lachy and Reuben will build upon the UI once they have more feedback following usability testing

4.3.2 RE: 2. Dashboard UI Prototype

- Jake and Alex will design the UI for the dashboard
 - Initially just a wireframe will do

- Eventually a small prototype would be nice (designed in Sketch) – but not essential
- The Sketch design would only assist development, but communication between the designers and the developers can always resolve this

4.3.3 RE: 3. Usability Testing

- Jake, Reuben, Lachlan and Alex will go to the help desk
 - Ask end-users for their opinions to create wireframes
 - Can also ask for additional ideas
 - What would the dashboard best look like for tutors? Students?
 - Think of a survey for opinions
- Actual testing can be done by recording people using the ticketing system
- Just use screen-capture software

4.3.4 RE: 4. Timeline for the coming weeks

- Create a timeline of the following weeks
- Alex made a mock on the whiteboard
- Weeks:
 - 4-5 development
 - 6-7 usability
 - 8-10: code changes based on usability feedback
 - 11-12: presentation & finalise everything
- Refer to whiteboard:
- Alex will make this legible and share next meeting

4.4 Agenda Items For Next Meeting

1. Sprint Plan Review
2. Review Alex's Changes

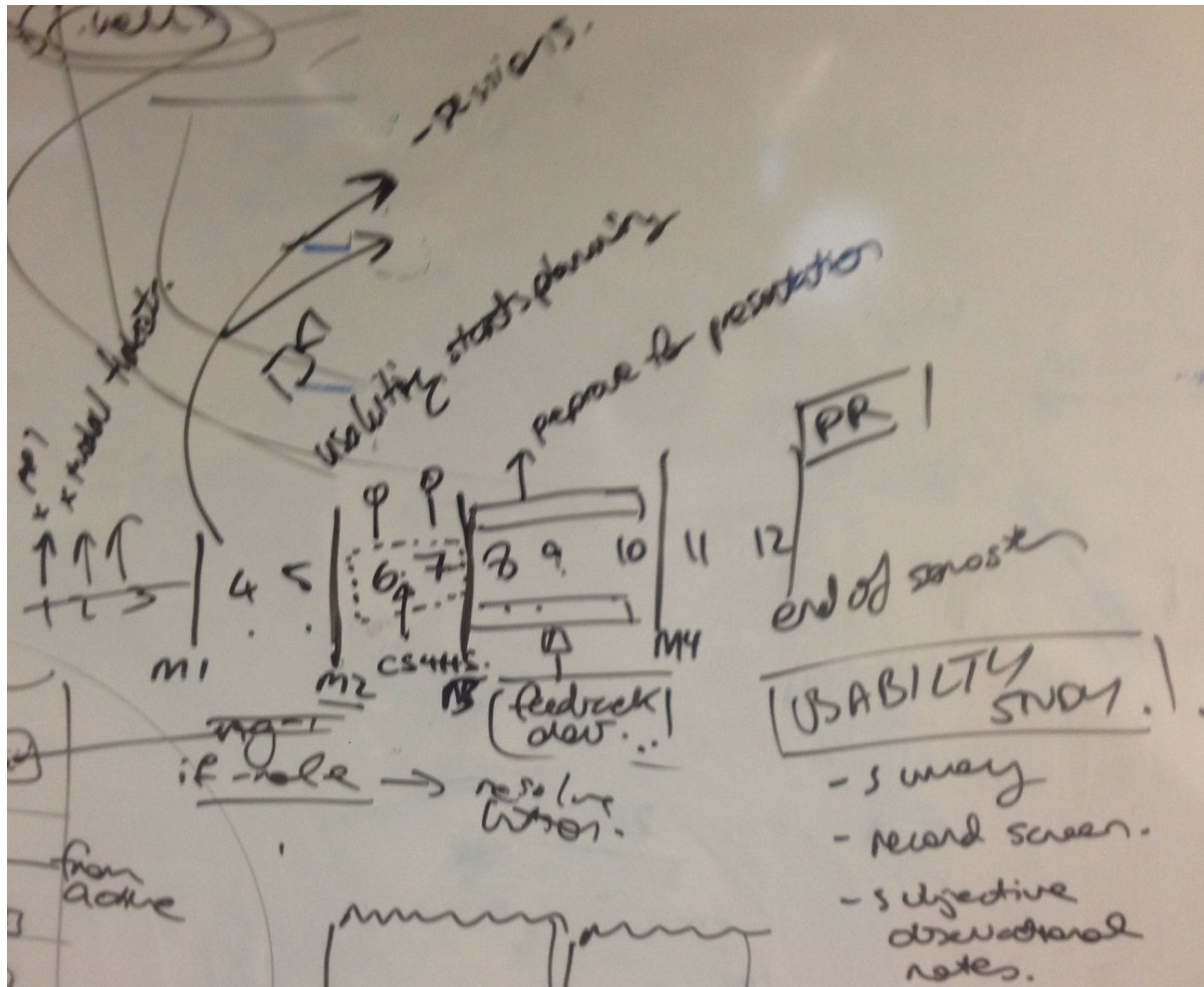


Figure 4: Sketch of timeline on whiteboard

4.4.1 Follow Up Actions

1. **Alex - Next week** - Make a legible timeline out of whiteboard and print out for next week
 2. **Alex - Next week** - Make barebones foundation for Lachlan and Reuben to work with and improve
 3. **Jake, Alex - 2 weeks** - Work on wireframe of dashboard UI
-

5 Meeting 30 Aug 12:00pm

Location: ATC Project Rooms

5.1 Present

- Jake Renzella
- Lachlan West
- Reuben Wilson

5.2 Agenda Items

1. Review Sprint Plan
2. Review Changes to Codebase

5.3 Discussion, Decisions and Agreements

5.3.1 RE: 1. Review Sprint Plan

- Team reviewed the sprint plan
- Agreed that dates were good and achievable

5.3.2 RE: 2. Review Changes to Codebase

- Codebase changes around API and Web
- Testing is 100% done on API with all endpoints - code is ready to be locked
- Front end is set up with all requests being made to the API

- Only thing outstanding is the dashboard stats chart
 - e.g. how many people are in help desk. How many tickets etc.
 - Alex still do to this along with additional changes to stats

5.3.3 Additional Items

- Progress review is due next week
- Film stock footage of us coding next week

5.4 Agenda Items For Next Meeting

1. Handover wireframe to Reuben and Lachlan
2. Progress on UI changes

5.4.1 Follow Up Actions

1. **Reuben and Lachlan - ASAP** - Take what Alex has done and create proper looking Ticket creation. CSS and logic such as ticket expanding
 2. **Jake - Next week** - Do wireframe, collaborating with Reuben & Lachlan
 3. **All - Next week** - Peer reviews
-

6 Meeting 6 Sept 12:00pm

Location: ATC Project Rooms

6.1 Present

- Jake Renzella
- Lachlan West
- Alex Cummaudo

6.2 Agenda Items

1. Progress on dashboard framework
2. Usability evaluation test planning

6.3 Discussion, Decisions and Agreements

6.3.1 RE: 1. Progress on dashboard framework

- Alex showed progress made on dashboard
- Agreed that the layout could be rearranged
- Discussed what options were available for the dashboard
 - Placing of stats at top
 - Placing of queue at bottom
 - Graph and tutors can be re-arranged

6.3.2 RE: 2. Usability evaluation test planning

- Usability preparation needs to happen soon
- Plan on executing evaluations Week 7 (after break)
- What is the purpose of the document?
 - Usability testing on the helpdesk dashboard
 - Benchmark of current system
 - Run survey to get information on what they have now
 - Show them a prototype
 - Run that survey again based on their experience of that prototype
- What kinds of questions do we ask
 - Background:
 - * Do you work at the helpdesk or study there?
 - * How many hours?
 - * Age range
 - * If you were at the back of the helpdesk, can you read writing on projector?
 - * Different font types and sizes
 - * List the three top things you would expect to see on a dashboard at the Helpdesk
 - * If staff:
 - On average how many hours do you work in one shift
 - How long have you been working (semesters)

- What subject(s) do you teach?
- How many students to concurrently support without being overburdened?
- How long do you think is acceptable for students to wait?
- List 3 bits of information would be most helpful for you before you see a student?
- * If student:
 - What is the max time you would be happy waiting for?
 - How long on average do you have to wait now?
 - If you could see how busy the helpdesk is before going there, would it affect the likelihood of going there.
 - Before going to the helpdesk what information would be helpful before going
- After showing them the prototype:
 - * List three things you liked
 - * List three things you didn't like (what would you change)
 - * Would you go to the helpdesk more if you had this
 - * Could you read all information? If not what couldn't you read?
 - * Would you prefer to sign in to access this information?
 - * What more information would you want to see?
 - * Would you like to be notified when a ticket is resolved by an: audio cue, visual cue, both, none
 - * Any additional comments

6.3.3 Additional Items

- Peer reviews are due this week!
- Try and get work logs up to date for this week

6.4 Agenda Items For Next Meeting

1. Review evaluation details made

6.4.1 Follow Up Actions

1. **Alex - ASAP** - Improve dashboard to match Jake's wireframes
 2. **Jake and Lachlan - Next week** - Work on usability docs
 3. **All - Next week** - Film some presentation video footage
-

7 Meeting 20 Sept 10:15am

Location: Graham's Office

7.1 Present

- Jake Renzella
- Alex Cummaudo
- Graham Farrell

7.2 Agenda Items

1. Progress update

7.3 Discussion, Decisions and Agreements

7.3.1 RE: 1. Progress update

- Graham is happy with progress so far, has been discussing with Andrew
- Suggests to focus priority on:
 1. Finishing Usability Evaluation
 2. Presentation video for Week 11
 3. Bundling together work into portfolio for Week 12
- Code lock as soon as possible

7.3.2 Additional Items

None

7.4 Agenda Items For Next Meeting

1. Progress update

7.4.1 Follow Up Actions

1. **Alex and Jake - Next 2 weeks** - Modify last semester's presentation to include latest work
2. **Lachlan - Next week** - Finalise changes to web codebase
3. **All - ASAP** - Film testimonials of system in use for presentation