**GREG:**

**Logged in as gsegala**

**Ticket** [**345**](http://veracity.cs.umd.edu/mentors/tickets/345) **2017-10-14 15:02:11 130 minutes**

**Ticket** [**371**](http://veracity.cs.umd.edu/mentors/tickets/371) **2017-10-17 12:54:09 180 minutes**

**Meeting between Liu and Greg on Saturday. Front end discussion and coordination. Decided to use Ruby 2d instead of processing 3d to more easily integrate with rails.**

**Ticket** [**372**](http://veracity.cs.umd.edu/mentors/tickets/372) **2017-10-17 12:55:50**

**Ticket** [**373**](http://veracity.cs.umd.edu/mentors/tickets/373) **2017-10-17 12:56:42 120 minutes**

**Installing linux, working on getting ruby 2d onto my machine, began learning ruby 2d.**

**Ticket** [**374**](http://veracity.cs.umd.edu/mentors/tickets/374) **2017-10-17 12:57:42**

**On Sunday: Installing linux, working on getting ruby 2d onto my machine, began learning ruby 2d.**

**Ticket** [**414**](http://veracity.cs.umd.edu/mentors/tickets/414) **2017-10-19 14:45:28 160 minutes**

**Weekly team meeting**

**Ticket** [**415**](http://veracity.cs.umd.edu/mentors/tickets/415) **2017-10-19 14:45:56**

**Ticket** [**649**](http://veracity.cs.umd.edu/mentors/tickets/649) **2017-11-01 16:44:14 60 minutes**

**Team meeting**

**Ticket** [**651**](http://veracity.cs.umd.edu/mentors/tickets/651) **2017-11-01 16:44:32 60 minutes**

**learning p5.js**

**Ticket** [**788**](http://veracity.cs.umd.edu/mentors/tickets/788) **2017-11-08 23:28:10 250 minutes**

**meeting and coding the basic front end decision tree sketching program**

**Ticket** [**883**](http://veracity.cs.umd.edu/mentors/tickets/883) **2017-11-14 12:04:57 300 minutes**

**Tree sketch program coding. Implementing different node types, Implementing delete, Implementing node dragging, and Implementing selection.**

**Ticket** [**912**](http://veracity.cs.umd.edu/mentors/tickets/912) **2017-11-15 18:57:56 120 minutes**

**Worked more on front end coding**

**Ticket** [**913**](http://veracity.cs.umd.edu/mentors/tickets/913) **2017-11-15 19:03:57 60 minutes**

**team meeting**

**Ticket** [**949**](http://veracity.cs.umd.edu/mentors/tickets/949) **2017-11-16 20:18:20 60 minutes**

**Started to figure out how to add text boxes to nodes and edges in the sketch program**

**Ticket** [**950**](http://veracity.cs.umd.edu/mentors/tickets/950) **2017-11-16 20:19:04**

**Ticket** [**1101**](http://veracity.cs.umd.edu/mentors/tickets/1101) **2017-11-28 18:15:58 460 minutes**

**working over break on the sketch**

**Ticket** [**1103**](http://veracity.cs.umd.edu/mentors/tickets/1103) **2017-11-28 19:31:58 120 minutes**

**Tuesday Meeting**

**Ticket** [**1145**](http://veracity.cs.umd.edu/mentors/tickets/1145) **2017-11-30 01:40:18 480 minutes**

**finishing up the sketching program and submitting it.**

**Ticket** [**1146**](http://veracity.cs.umd.edu/mentors/tickets/1146) **2017-11-30 01:40:59 60 minutes**

**Team Meeting.**

**Ticket** [**1235**](http://veracity.cs.umd.edu/mentors/tickets/1235) **2017-12-03 20:21:56 220 minutes**

**working on sketch redo function**

**Ticket** [**1272**](http://veracity.cs.umd.edu/mentors/tickets/1272) **2017-12-05 18:40:23 120 minutes**

**working on undo function complete**

**Ticket** [**1278**](http://veracity.cs.umd.edu/mentors/tickets/1278) **2017-12-05 23:56:27 240 minutes**

**Implementing tree loading format. Finished sketch program (I think im done...hopefully).**

**Ticket** [**1325**](http://veracity.cs.umd.edu/mentors/tickets/1325) **2017-12-07 03:59:39 600 minutes**

**Last meeting**

**LUCAS:**

**Ticket** [**156**](http://veracity.cs.umd.edu/mentors/tickets/156) 2017-10-01 15:46:29 60 minutes

Research on grading criteria for decision trees

**Ticket** [**157**](http://veracity.cs.umd.edu/mentors/tickets/157) 2017-10-01 15:47:21 10 minutes

Scheudling an appointment with Dr. Herrmann and our Project Group

**Ticket** [**158**](http://veracity.cs.umd.edu/mentors/tickets/158) 2017-10-01 15:47:46

**Ticket** [**598**](http://veracity.cs.umd.edu/mentors/tickets/598) 2017-10-31 17:50:08 60 minutes

Initial Meeting with Herrmann, our client, got in depth project specifications beyond our initial email (Wed, Oct 4). Saw firsthand how he drew trees, defined expected structure (decision vs. chance) and end nodes. Learned about ability to "collapse", or simplify decision trees to aid grading

**Ticket** [**599**](http://veracity.cs.umd.edu/mentors/tickets/599) 2017-10-31 17:57:53 10 minutes

9/26 - Told/Helped Greg email Herrmann for inquires on initial project specs beyond what was given in website

**Ticket** [**600**](http://veracity.cs.umd.edu/mentors/tickets/600) 2017-10-31 17:58:46 60 minutes

9/28 - Weekly Meeting: Discussed Herrmann's email and his materials, what he expected us to do. Talk possibility of doing graphs is negligible and should NOT be pursued. Reviewed material for those who didn't read the attachments Herrmann sent.

**Ticket** [**601**](http://veracity.cs.umd.edu/mentors/tickets/601) 2017-10-31 18:01:08 30 minutes

9/27 Read attachements Herrmann sent to group in anticipation of weekly Wednesday meeting

**Ticket** [**602**](http://veracity.cs.umd.edu/mentors/tickets/602) 2017-10-31 18:01:42 30 minutes

9/28 - Creation of Google Doc Folder (master files) to share docs and update material due to group familiarity with this software. Discussed impact of adding the requirement of imaging after learning this vision from Purtilo.

**Ticket** [**603**](http://veracity.cs.umd.edu/mentors/tickets/603) 2017-10-31 18:04:10 90 minutes

9/29 Finalization and clean-up of Feasibility Report, as well as including previous time/effort spent in working on it (probably was more, but this was some time ago and I'm estimating low)

**Ticket** [**604**](http://veracity.cs.umd.edu/mentors/tickets/604) 2017-10-31 18:05:33 10 minutes

10/1 Survey for Gallop Poll

**Ticket** [**605**](http://veracity.cs.umd.edu/mentors/tickets/605) 2017-10-31 18:05:59 160 minutes

10/4 Weekly Meeting after first meeting with Herrmann - Lead breaking our groups into 3 subgroups - website, grading and imaging. With real-life examples of tests (and answers) we could use, our agenda started with sorting team members into each group. Then separated as each team sorted out by themselves what to do to get started and what research was needed. Team Norms also created, and initialization of VM enviroment (with installing rails,etc) also done

**Ticket** [**606**](http://veracity.cs.umd.edu/mentors/tickets/606) 2017-10-31 18:10:40

10/11 Weekly Meeting: Setup schedules to account for when everyone's busy as well as exams, researched CAS for website team, and caught up on what things grading subgroup had. Imaging seemed fine and reported they were managing CV3

**Ticket** [**607**](http://veracity.cs.umd.edu/mentors/tickets/607) 2017-10-31 18:14:37

**Ticket** [**608**](http://veracity.cs.umd.edu/mentors/tickets/608) 2017-10-31 18:15:08 60 minutes

10/11 Weekly Meeting: Setup schedules to account for when everyone's busy as well as exams, researched CAS for website team, and caught up on what things grading subgroup had. Imaging seemed fine and reported they were managing CV3

**Ticket** [**609**](http://veracity.cs.umd.edu/mentors/tickets/609) 2017-10-31 18:15:16 30 minutes

10/16 Discussion of lack of disk space on VM, possible ruby Gems/resources we can use. Organized someone to contact/setup with Purtilo for increased VM space

**Ticket** [**610**](http://veracity.cs.umd.edu/mentors/tickets/610) 2017-10-31 18:17:03 40 minutes

10/20 Shorter meeting with Herrmann discussing difficulty of image processing and seeing just how varied student's answers can get - consideration of Imaging subgroup being put on backburner so more effort can be focused on mission critical parts

**Ticket** [**611**](http://veracity.cs.umd.edu/mentors/tickets/611) 2017-10-31 18:18:59 100 minutes

10/18 - Weekly Meeting: Lots of work done, discussed and saw machine learning results from imaging team of text (was able to get rid of shadow noise, but still had trouble exactly locating words). Website drew complete page pathway of what they expect to have, and we made a schema for what database fields we expected to need. Tried again to reinstall environment after hard reset of our VM with added space.

**Ticket** [**612**](http://veracity.cs.umd.edu/mentors/tickets/612) 2017-10-31 18:22:02 130 minutes

10/25 - Weekly Meeting: Need for proposal, had outlines set up as well as established times estimation for each part and how much each group has finished code-wise. CAS Implementation close to working, but additional research needed with Liu. Contacted Yoni to start database creation based on schema from last week (was absent last week to meeting). Talked and confirmed need for Imaging to be able to also merge into Website/Grading - will need to contact Purtilo about this issue.

**Ticket** [**613**](http://veracity.cs.umd.edu/mentors/tickets/613) 2017-10-31 18:25:20

**Ticket** [**614**](http://veracity.cs.umd.edu/mentors/tickets/614) 2017-10-31 18:26:05 60 minutes

10/27 Worked on Proposal - Basic Outlines

**Ticket** [**615**](http://veracity.cs.umd.edu/mentors/tickets/615) 2017-10-31 18:26:41 80 minutes

10/30 - Flushing out Proposal to Paragraph Form, adding more parts to both Website and Grading. Also in charge of privately getting other group members online to work on the document since there wasn't much response on group-chat.

**Ticket** [**616**](http://veracity.cs.umd.edu/mentors/tickets/616) 2017-10-31 18:27:55 30 minutes

10/31 Finalized Proposal Draft to send and cleaned up sections with our proposal. Sent email to Purtilo, waiting for feedback

**Ticket** [**627**](http://veracity.cs.umd.edu/mentors/tickets/627) 2017-10-31 19:58:20 60 minutes

10/31 - Integration of Ruby Wordnet for synonym use to VM

**Ticket** [**1147**](http://veracity.cs.umd.edu/mentors/tickets/1147) 2017-11-30 02:08:15 450 minutes

Vastly update website functionality: Changed Instructor Controller, adding courses & new instructors, Assignements and Students for each course

**Ticket** [**1340**](http://veracity.cs.umd.edu/mentors/tickets/1340) 2017-12-07 05:30:12 400 minutes

12/4 - Massive changes to website for integration, polished websites and got to work on working for integrating for Processing

**Ticket** [**1341**](http://veracity.cs.umd.edu/mentors/tickets/1341) 2017-12-07 05:31:25 330 minutes

12/5 - Still more integration with Grading/Processing on connecting them with website. Help correct some mistakes by Liu. Start of Final Reflection (and seeing if we passed submission tests)

**Ticket** [**1342**](http://veracity.cs.umd.edu/mentors/tickets/1342) 2017-12-07 05:32:37 600 minutes

12/6 - Met up with Herrmann, let him see our own functionality of the website (imaging, grading fully integrated, with processing js only partially initially). Added backend functionality to making trees where it can actually (finally) save to the database. Looked and polished part of the Final Document.

**Ticket** [**1343**](http://veracity.cs.umd.edu/mentors/tickets/1343) 2017-12-07 05:35:13 600 minutes

Addendum - Approximate (extreme lowball) estimate for everything else I've done in this class that's a bit too late to mention. Was at every team meeting since as leader, had to ensure everyone knew what they were doing and what would be planned next. Really could have (and should have) pushed website section to be done first rather than imaging and digital tree creation (processing.js). Additionally attended every meeting with Herrmann to better see where we were in project. Contributed majorly to the Proposal (majority of work probably done by me to push to first 20+ and eventually 30+), while rest of team coded during this time. Then switched to website and majorly helped contribute integration of digital tree creation (processing) to backend, a major component of our website.

**Ticket** [**1346**](http://veracity.cs.umd.edu/mentors/tickets/1346) 2017-12-07 05:44:38 800 minutes

Additional time spent on organizing group work,

**Yoni**

**Ticket** [**1100**](http://veracity.cs.umd.edu/mentors/tickets/1100)2017-11-28 18:15:30 120 minutes

Worked to create more space on VM and worked on a few more pages.

**Ticket** [**1123**](http://veracity.cs.umd.edu/mentors/tickets/1123)2017-11-29 20:57:28 250 minutes

Team Meeting plus working on website

**Ticket** [**1273**](http://veracity.cs.umd.edu/mentors/tickets/1273)2017-12-05 18:40:40 610 minutes

For today and yesterday, Integrating processing, imaging, and grading

**Ticket** [**1345**](http://veracity.cs.umd.edu/mentors/tickets/1345)2017-12-07 05:43:51 1210 minutes

Pulled an all morning and all nighter to get the website and documentation ready.

**David**

**Ticket** [**95**](http://veracity.cs.umd.edu/mentors/tickets/95)  2017-09-27 20:39:19 60 minutes

First meeting with the big project groups. We outlined the feasibility report and we started to discus the outline of our implementation.

**Ticket** [**303**](http://veracity.cs.umd.edu/mentors/tickets/303)  2017-10-12 14:07:20 90 minutes

Found EMNIST data set for training Neural network to read words and numbers. Implemented an OpenCV package that can detect words within a photo.

**Ticket** [**342**](http://veracity.cs.umd.edu/mentors/tickets/342)  2017-10-14 12:59:27 120 minutes

Setting up OpenCV.

**Ticket** [**343**](http://veracity.cs.umd.edu/mentors/tickets/343)  2017-10-14 13:00:21

**Ticket** [**344**](http://veracity.cs.umd.edu/mentors/tickets/344)  2017-10-14 13:00:31

Clarification from last post -- Trying to set up OpenCV on the server

**Ticket** [**401**](http://veracity.cs.umd.edu/mentors/tickets/401)  2017-10-18 19:58:26 180 minutes

Improved text recognition by using edge detection instead of intensity thresholding as a filter. Decided that Node detection is more important right now. Decided that making an algorithm that can create dependencies between nodes has a higher priority than text recognition. Still need to decide on how we are going to parse the text into individual characters and then training a neural network to interpret those letters/numbers. Do we need to include special characters?

**Ticket** [**433**](http://veracity.cs.umd.edu/mentors/tickets/433)  2017-10-20 13:06:20 150 minutes

We had a 30 min meeting with Dr. Herrmann. He wants us to have dates that we will have some key modules implemented. We talked to him about imaging and about the feasibility of it. It seems that it isn't going to be very viable to do it. I experimented with different image types last night and it had the same result between the different kinds of algorithms. I also did some experiments with different resolutions of images. It seems that some algorithms work better for different sizes. I will send an email to you later with the results. What will probably happen is we will have to constrain the students to drawing decision trees a certain way: Straight edges, Left to right implementation, Triangle nodes for outcomes, and probably some other things. Will update more over the weekend.

**Ticket** [**476**](http://veracity.cs.umd.edu/mentors/tickets/476)  2017-10-23 22:28:08 60 minutes

Did some more experimentation with resolutions. It turns out that different file formats do not change how the system operates because they all get changed to the same file anyway. Plus all of the resizing is done as an OpenCV object instead of as a jpg or bitmap file. It seems that lower resolutions works well to identify shapes and the higher resolution works better to identify words. The problems are that these algorithms use the number of pixels as a hyper parameter, so the different resolutions have to be tuned. We came up with the basic outline for restrictions for the students so that the software would be able to recognize it better. However, we think that the rules are too strict for students to follow. Additionally, we have no come up with a good way for the algorithm to determine how good the interpretation is going to be. It is looks increasingly like it is no viable to do imaging. With the approaching deadline and no sort of work done yet with the green light, it may be a better use to use the imaging man power in the other sections like website and grading.

**Ticket** [**512**](http://veracity.cs.umd.edu/mentors/tickets/512)  2017-10-25 20:55:22 180 minutes

Team meeting. We discussed the viability of doing OpenCV and timelines for Grading and website. We set dates for grading but none for website. Not enough of that sub team was around. I worked on the Proposal outline and thought of some questions to ask Dr. Herrmann to clarify the project; mostly about clarifying the 'intuition' behind grading. I also made the basic outline for the proposal. indicating where the other teams need to put in more information, make plans, etc. I am little worried about website

**Ticket** [**543**](http://veracity.cs.umd.edu/mentors/tickets/543)  2017-10-26 23:44:25 200 minutes

Worked on some more imaging. I implemented a crawler algorithm that first does a left sweep of the image to find the first dark pixel (this assumes that the tree is 'perfect' (a screenshot from Microsoft word) and that the first thing on the left side of the image is an edge of the root node). It seems to work pretty well. Talked with the rest of the website to see how they are structuring out their remaining time.

**Ticket** [**586**](http://veracity.cs.umd.edu/mentors/tickets/586)  2017-10-30 22:52:50 180 minutes

Worked on the Proposal for the Green light. Wrote up the entire outline.

**Ticket** [**592**](http://veracity.cs.umd.edu/mentors/tickets/592)  2017-10-31 12:49:02 90 minutes

Finishing up with the proposal. I will start going back to imaging later today.

**Ticket** [**644**](http://veracity.cs.umd.edu/mentors/tickets/644)  2017-11-01 14:39:33 300 minutes

Created the simple\_connection\_finder. It makes a graph data structure whose children are children from the pixel image. The values in each node are the size of the node. Will email and update you later in an email.

**Ticket** [**657**](http://veracity.cs.umd.edu/mentors/tickets/657)  2017-11-01 21:01:05 120 minutes

Had meeting. Discussed the next version of the paper. Finished off the algorithm that converts a simple bitmap into a graph structure

**Ticket** [**671**](http://veracity.cs.umd.edu/mentors/tickets/671)  2017-11-02 16:17:14 150 minutes

Made simple\_connection\_finder at least 1000 times more efficient by inserting an array that saves which pixels are already in the queue so there are no duplicates. It now runs on a the entire simple\_connection\_finder parses a 1100x2400 image in ~1 second on my computer instead of >6 minutes.  
  
I created a color coded image of the simple case of taking a screen shot of word. simple\_connection\_finder is not working well on this. For some reason it is saving the location information of edges instead of nodes. I am really close to solving it. should be done at the end of the day.

**Ticket** [**776**](http://veracity.cs.umd.edu/mentors/tickets/776)  2017-11-08 01:39:12 240 minutes

Created acceptance tests for the website. Created and tested the preprocessing unit for reading in hand drawn color images. Emailed Purtilo on status.

**Ticket** [**784**](http://veracity.cs.umd.edu/mentors/tickets/784)  2017-11-08 19:28:09 180 minutes

Improved the acceptance tests for the proposal and I formatted the proposal. We plan on submitting the proposal on Friday.  
  
I improved the way that images are converted into bitmaps. Did not get very far for text recognition. Need help with this part.

**Ticket** [**866**](http://veracity.cs.umd.edu/mentors/tickets/866)  2017-11-12 21:29:59 180 minutes

Found, installed, and implemented tesseract OCR system. Doesn't work without manual cropping out the node shape and doesn't work well with pencil. Trying out pen tomorrow. Need to think of an algorithm that crops out node.  
  
I know how to cancel out the node - if you do a pan left search for the first non zero node, you're going to hit a pixel as a part of the node edge. Then we can traverse all of the node pixels adjacent to that and then set them to 0. Then we are only left with non-zero pixels that are for words... Ideally....

**Ticket** [**871**](http://veracity.cs.umd.edu/mentors/tickets/871)  2017-11-13 20:12:35 240 minutes

Created the algorithms to read the labels of edges and nodes and created a graph structure that can hold it.  
Implemented using tesseract.  
  
Still TODO:  
test how well it does with manipulations (angle of test, font, locations of nodes, handwriting)  
Improve how I deal with dark spots when blue and red meet  
Improve the speed of converting the image to a bitmap (and preprocessing)  
Improve tesseract (better preprocessing? don't use tesseract?)  
convert into XML  
edges: reading probabilities (if necessary)  
Judging types of nodes

**Ticket** [**897**](http://veracity.cs.umd.edu/mentors/tickets/897)  2017-11-14 19:27:37 300 minutes

Converted the algorithm to using green nodes to surround the edge labels

**Ticket** [**958**](http://veracity.cs.umd.edu/mentors/tickets/958)  2017-11-17 12:03:07 240 minutes

Working with how to detect the types of shapes. Fixed when there is overlapping colors and it becomes dark. Working on acceptance tests for imaging.

**Ticket** [**966**](http://veracity.cs.umd.edu/mentors/tickets/966)  2017-11-17 16:04:08 40 minutes

Green light statement: worked on IP, made a dependencies section.

**Ticket** [**987**](http://veracity.cs.umd.edu/mentors/tickets/987)  2017-11-18 19:41:37 210 minutes

Worked on Green light proposal. Rewrote basically the whole product definition and the specs. Added tests for the workflow of the imaging. Made progress on shape recognition.

**Ticket** [**1060**](http://veracity.cs.umd.edu/mentors/tickets/1060)  2017-11-25 22:15:41 660 minutes

Work over break to make the entire thing color coded. Did not send the work to you because a lot of it was changing from adding to the code base.

**Ticket** [**1067**](http://veracity.cs.umd.edu/mentors/tickets/1067)  2017-11-26 21:53:40 600 minutes

Figured out thresholding of the different spectrums of 4 different colors that have mutually exclusive spectrums when writing over pencil. Encoded the logic into my main algorithm. Finishing up documentation and then committing my stuff

**Ticket** [**1084**](http://veracity.cs.umd.edu/mentors/tickets/1084)  2017-11-27 20:34:27 240 minutes

Debugging main algorithm and function for converting the file to XML.

**Ticket** [**1092**](http://veracity.cs.umd.edu/mentors/tickets/1092)  2017-11-28 07:46:39 500 minutes

Debugged. implemented more robust spectrum (works on two different scanners now), made it fail more nicely, automatic orientation adjustment

**Ticket** [**1249**](http://veracity.cs.umd.edu/mentors/tickets/1249)  2017-12-04 20:50:21 480 minutes

Worked on creating executable, helping integrate with website

**Ticket** [**1347**](http://veracity.cs.umd.edu/mentors/tickets/1347)  2017-12-07 05:44:49 850 minutes

Did most of Final Report - Did a lot of extensive documentation of imaging, Helped with Website, Finished up last touches of imaging algorithm

**Ameen**

**Ticket** [**730**](http://veracity.cs.umd.edu/mentors/tickets/730) **2017-11-05 18:02:53 60 minutes**

**Create cost estimate chart for grading**

**Ticket** [**1102**](http://veracity.cs.umd.edu/mentors/tickets/1102) **2017-11-28 18:17:55 60 minutes**

**Meeting with group to discuss dataflow**

**Ticket** [**1246**](http://veracity.cs.umd.edu/mentors/tickets/1246) **2017-12-04 18:29:31 120 minutes**

**parsing work/meeting**

**Liu’s working**

**Reporting period of 20171215**

**Logged in as gliu123**

**Ticket** [**159**](http://veracity.cs.umd.edu/mentors/tickets/159) **2017-10-01 17:01:39 60 minutes**

**Ticket** [**217**](http://veracity.cs.umd.edu/mentors/tickets/217) **2017-10-06 17:53:36 80 minutes**

**Ticket** [**218**](http://veracity.cs.umd.edu/mentors/tickets/218) **2017-10-06 18:01:11 110 minutes**

**Ticket** [**219**](http://veracity.cs.umd.edu/mentors/tickets/219) **2017-10-06 18:01:18 170 minutes**

**Ticket** [**234**](http://veracity.cs.umd.edu/mentors/tickets/234) **2017-10-09 14:26:56 90 minutes**

**Ticket** [**299**](http://veracity.cs.umd.edu/mentors/tickets/299) **2017-10-12 13:28:36 150 minutes**

**Ticket** [**354**](http://veracity.cs.umd.edu/mentors/tickets/354) **2017-10-15 22:18:06 180 minutes**

**Ticket** [**355**](http://veracity.cs.umd.edu/mentors/tickets/355) **2017-10-15 22:18:38 80 minutes**

**Ticket** [**402**](http://veracity.cs.umd.edu/mentors/tickets/402) **2017-10-18 20:27:49 50 minutes**

**Ticket** [**406**](http://veracity.cs.umd.edu/mentors/tickets/406) **2017-10-19 12:31:41 170 minutes**

**Group Discussion for website pages logic and database design for decision tree projectr**

**Ticket** [**522**](http://veracity.cs.umd.edu/mentors/tickets/522) **2017-10-26 13:15:39 120 minutes**

**Google doc for explaining how ruby works in this decision tree.**

**Ticket** [**650**](http://veracity.cs.umd.edu/mentors/tickets/650) **2017-11-01 16:44:26 130 minutes**

**Group meeting**

**Ticket** [**1124**](http://veracity.cs.umd.edu/mentors/tickets/1124) **2017-11-29 20:58:39 410 minutes**

**Implementing part of instructors**

**Ticket** [**1271**](http://veracity.cs.umd.edu/mentors/tickets/1271) **2017-12-05 18:40:04 300 minutes**

**Team work**

**Ticket** [**1344**](http://veracity.cs.umd.edu/mentors/tickets/1344) **2017-12-07 05:43:51 460 minutes**