### Finalized Priority List and Tests

1. Show the number of seats in the bus and the ability to rate Driver - 25
   1. The correct number of seats for the corresponding bus is given. - 10
   2. The number of seats is updated with every online ticket purchase - 5
   3. The bus seats are reset every day except for weekly and monthly tickets. -3
   4. The bus information is correct for each driver and every bus. - 2
   5. Correct driver is rated depending on the ticket a user bought. - 3
   6. For low ratings the user needs to give a brief description of their experience. - 2
2. Estimated Bus Tracking System - 75
   1. The bus stops for each bus are correct and updated regularly.
   2. The bus tracking system stays within an error range of +-10 mins.
   3. Bus tracking is updated every 15 minutes with a new position (if changed) of the bus.
   4. Any discrepancies or changes on the route are updated on the system within 30 mins.
   5. The bus route and stops on the map are correctly shown for each bus.
   6. All the buses should be updated based on the day they are running and any altered hours.
   7. If a bus is delayed due to any reason, the bus routes and times should be altered accordingly.
3. Login/Authentication - 3
   1. Detect already existing email or new email and redirect to the appropriate page.
   2. Detect aiu.edu email address and make sure only one student is registered with one email address.
   3. Detects a strong password of 8 characters with Uppercase,lowercase, number, and symbol.
   4. Use university id to make sure a student is registered and eligible for the services. (By uploading the university id and correctly detecting the student id number)
4. Bus Route Information - 5
   1. Verify the bus route information with bus drivers to make sure the regions are marked correctly on the map.
   2. The information is updated on holidays and rush days.
5. Online Booking - 75
   1. Verify the student is registered at the university.
   2. Verify the correctness of the card details using Luhn’s Algorithm.
   3. Make sure there are no time conflicts between different bus tickets.
   4. Limit the bus ticket to two per student.
   5. Correctly records the time at which the ticket was bought to allow alterations 24 hours prior.
   6. Correctly update the seat lefts in the bus.
6. Updated Weather/Bus information - 20
   1. Make sure any changes in route or itinerary is updated within 30 minutes due to weather or unforeseen circumstances due to road closings or flat tires.
   2. Correctly updates the emergency dialog box on the website.

### Tasks

1. Show the number of seats in the bus and the ability to rate Driver - 25
   1. JavaScript based API. - 6 hours
   2. Deployment on Heroku/Railway. - 1 hour
   3. MongoDB database. - 1 hour
   4. Authentication for different endpoints. - 4 hours
   5. Jest/Postman for testing endpoints. - 5 hours
   6. HTML/CSS to view the data in a user friendly way. - 1 hour
   7. Ask the user for location timestamp so that we can estimate bus timings more accurately. - 2 hours
2. Estimated Bus Tracking System - 75
   1. User friendly map with all the bus stops and bus routes. - 7 hours
   2. Updated location of the buses on the map every 15 minutes. - 1 hour
   3. HTML/CSS/JavaScript website to portray the requested bus data. - 1 hour
   4. User friendly drop down menu to select different buses to view their

Information. - 1 hour

* 1. Get location timestamps every 15 minutes to keep the bus location updated. - 1 hour

1. Login/Authentication - 3
2. A user-friendly interface (HTML/CSS) for an easier process for registration. - 1 hour
3. Doing authentication for users using Oauth 2.0. - 2 hours
4. Checking for password strength using HTML. - 1 hour

4. Bus Route Information - 5

1. User friendly map with all the bus stops and bus routes. - 7 hours
2. Updated location of the buses on the map every 15 minutes. - 1 hour
3. Authentication for driver & bus data. - 2 hours

5.Online Booking - 75

1. Stripe or Plaid api integration with correct banking information. - 4 hours
2. Integration of Luhn’s algorithm if required. - 1 hour
3. Limiting the user to 2 bus tickets one to the university and one from the university using previous tickets bought for the day. - 2 hour
4. Saving history of the purchased tickets on the app and allowing the user to rebook the previous ticket quickly. - 2 hours

6. Updated Weather/Bus information - 20

1. Showing pop-up messages in case of a problem of who should be called. - 1 hour
2. Showing pop-up messages in case of closed streets or streets could delay the trip. - 1 hour