

Milestone I: Context Modeling

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This file documented context modeling process of the Trainee Flight Ops (TFO) system for Derp University. It includes project requirements, user stories, and a context model diagram.

Project Requirements

- Functional Requirements
 1. The system shall track the cumulative flight time logged by trainees.
 2. The system shall record the trainee's medical record for class instructor to check before take off.
 3. The system shall keep grades of each students on each flight of trainees associate with their pilot certificate.
 4. The system shall generate a training curriculum for each student based on their learning status.
 5. The system shall track the landing currency of trainees so that instructors can grade their performance.
 6. The system shall check the prerequisite class to see if the students' enrollment valid.
 7. The system shall track the aircraft usage of the session to make sure every trainees have proper equipment to use in enrolled session.
 8. The system shall record the in-flight time of each students in class to check if the minimal flight time requirement of the class has been met.
- Non-functional Requirements
 1. The system shall meet the CIA triad to keep user information safe by utilizing RADIUS network protocol for AAA process.
 2. The system shall respond to the enrollment checking request within 20ms.
 3. The system shall allow trainees to track their training record from mobile devices.
 4. The system shall only allow instructors to modify students' grading information.
 5. The system shall follow the guidelines of FERPA.

User Stories

1. As an instructor, I want to view the flight time of my trainees online so that I can monitor my students' training progress.
2. As an instructor, I want to access my trainees' relevant medical records through the user portal so that I can make sure it is safe for them to fly.
3. As a trainee, I want to access my flight record and my certificate so that I can track the performance of each flight I have taken.
4. As a trainee, I want to receive my training curriculum so that I can learn more about what I should do to prepare for the coming training period.
5. As an instructor, I want to grade my trainee's performance with landing currency recorded so that I can identify problem areas for my students over time.
6. As a trainee, I want to check my attendance for each of my classes so that I can keep track of my absences throughout the grading period.
7. As an instructor, I want to track the usage of each aircraft so that my trainees will have an aircraft to use for training during the lesson.
8. As an instructor, I want to track each trainees' in-flight time of each student so that I can ensure everyone meets their class requirement.
9. As a trainee, I want to keep my information safe and only accessible by authorized personnel so that my information is protected.
10. As a trainee, I want to quickly receive confirmation that my enrollment request was processed so that I know that the correct schedule changes have been made.
11. As a trainee, I want to use my phone to track my training records so that I can easily access my flight performance when I don't have access to my computer.
12. As an instructor, I want to be the only one that can modify my trainees' record so that the record integrity can be kept.
13. As an administrator, I want the system to follow the FERPA guidelines so that the university can avoid legal issues.

