

# Training Record Management System

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Project Summary:

Ocean County College was tasked with designing and implementing a Training Record Management System for Joint Base McGuire-Dix-Lakehurst. Based on information received from the Joint Base, the team engineered a database design to support managing data including training records and requirements for individuals in the military, as well as completion status. The team then began creating a Frontend web-based application that could be installed and accessed on the Joint Base's secure network.

## Current Features:

- Database:
  - Supports
    - CFETP Records
    - Individual Training Records
      - Signoffs
    - AFSC
    - Rank Hierarchy
    - Workcenters
      - Master Task Listings
    - Users
      - Trainee
      - Trainer
      - Supervisor

## Current Features Continued:

- Web App
  - Trainee Login
    - Dashboard
    - Displays Trainings
      - Name
      - AFSC Code
      - Task number
      - Task name
      - Date
      - Completion Status
      - Assigner
  - Trainer Login
    - Dashboard
    - Displays Assigned Trainings
      - AFSC Code
      - Task number
      - Task name
      - Date
      - Completion Status
        - Signoff button
      - Assignee
    - Trainer's ITPs (if exist)

- Supervisor Login:
  - Dashboard
  - Display Assigned Trainings
    - Uses the same trainer view design
  - Supervisor's ITPs (if exist)
  - Display workcenter members
    - Name
      - Includes a hyperlink that redirects to the edit user information form.
    - AFSC code
    - Role
    - Rank
  - Display MTL tasks for the supervisor's workcenter
    - Task number
    - Task name
    - Add task button
      - Redirects to an add CFETP task form

## Future Features:

- CFETP Record Ingestion – Automatic Update of Records
- Dashboard design for trainees, trainers, and supervisors.
- More Complex User Interface
  - Search/Display Individual Records
  - Group Assignment of Tasks
- Improving the general UI design
- Training Journals
- Track core tasks separately
- Filter CFETP tasks by groups
  - Goal: Make navigation of long task lists easier
- Implement JQS (Job Qualification Standard)
- Implement more system validations



# Deliverables:

## 1. MySQL Database – Installed on Innovation Lab Server

### Schema:

Table	Column	Type	Default Value	Nullable
CFETP	afsc_id	int		NO
CFETP	cfetp_id	int		NO
CFETP	cfetp_name	varchar(100)		NO
CFETP	min_skill_level	int		NO
CFETP	task_number	varchar(35)		NO
ITP	completion_date	date		YES
ITP	itp_id	int		NO
ITP	mtl_id	int		YES
ITP	start_date	date		NO
ITP	trainee_id	int		YES
ITP	trainee_signature	tinyint(1)		YES
ITP	trainer_id	int		YES
ITP	trainer_signature	tinyint(1)		YES
MTL	cfetp_id	int		YES
MTL	mtl_id	int		NO
MTL	workcenter_id	int		YES
Ranks	rank_id	int		NO
Ranks	rank_level	int unsigned		NO
Ranks	rank_name	varchar(100)		NO
Roles	role_id	int		NO
Roles	role_name	varchar(50)		NO
Users	afsc_id	int		YES
Users	name	varchar(100)		NO
Users	profile_id	int		NO
Users	rank_id	int		NO
Users	role_id	int		NO
Users	skill_level	int		NO
Users	user_id	int		YES
Users	workcenter_id	int		YES
Workcenter	workcenter_id	int		NO
Workcenter	workcenter_name	varchar(100)		NO

Notes: Working Prototype – May not support all future features

Access: UserName: Devilwerx Password: Jbmdl1234!



## 2. Web Application

### Screenshots

Dashboard view:

The dashboard is currently under development. The goal is to design a role-specific dashboard that centralizes key information and streamlines navigation. Here's the plan for what each dashboard will offer once implemented.

Planned features:

#### **Trainee dashboard:**

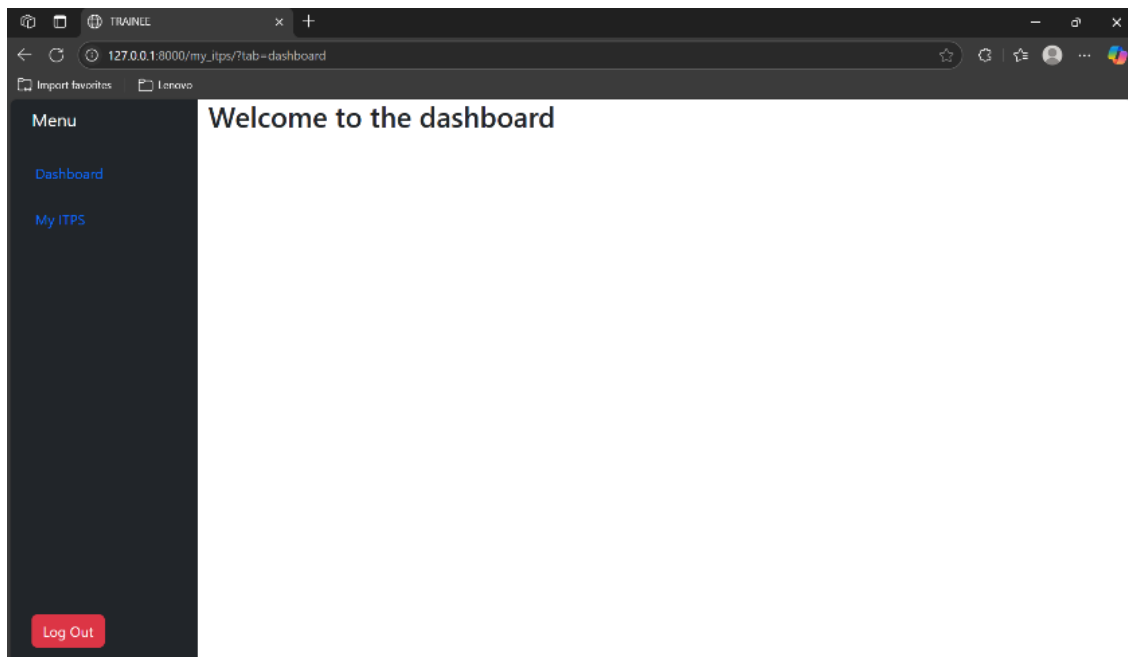
- Display AFSC and current skill level at the top
- List of assigned ITPs with status (e.g., In progress, Completed)
- Progress bar for completed vs. pending tasks
- Upcoming tasks
- Training journal access
- Downloadable PDF ITPs summary

#### **Trainer dashboard**

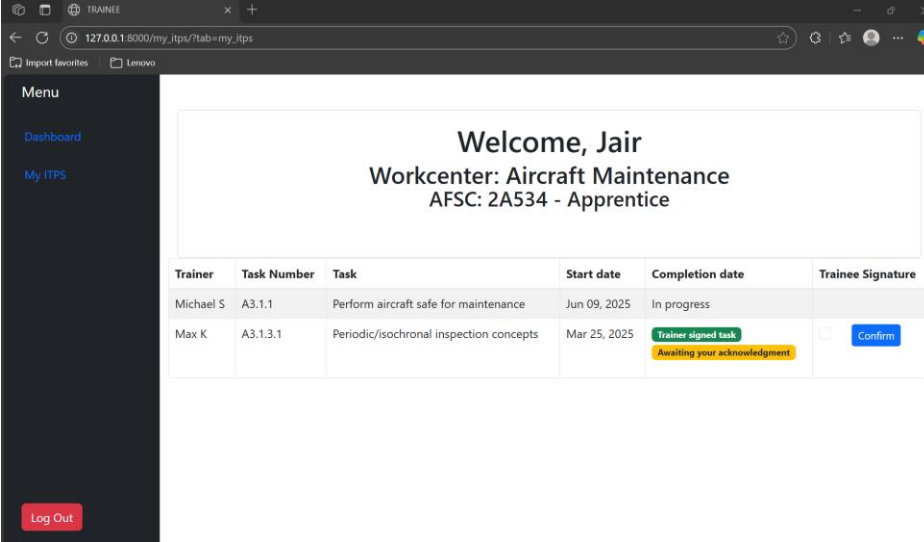
- Overview of all assigned trainees
- Status of each trainee's ITP
- Quick filters by name, rank, or progress
- Downloadable PDF ITPs summary
- Core task tracking

## Supervisor dashboard:

- Workcenter overview
- Assigning Trainers to Trainees
- Core task tracking
- JQS implementation access
- Downloadable PDF ITPs summary\
- MTL editing shortcuts



**Trainee view:**  
**Trainee ITPs:**



The screenshot shows a web browser window with the URL 127.0.0.1:8000/my\_itps/?tab=my\_itps. The interface has a dark sidebar menu with 'Dashboard' and 'My ITPs' options, and a 'Log Out' button at the bottom. The main content area displays a welcome message for 'Jair' at 'Workcenter: Aircraft Maintenance' with 'AFSC: 2A534 - Apprentice'. Below this is a table of Individual Training Plans (ITPs).

Trainer	Task Number	Task	Start date	Completion date	Trainee Signature
Michael S	A3.1.1	Perform aircraft safe for maintenance	Jun 09, 2025	In progress	
Max K	A3.1.3.1	Periodic/isochronal inspection concepts	Mar 25, 2025	Trainer signed task Awaiting your acknowledgment	<input type="checkbox"/> Confirm

This interface displays a table of Individual Training Plans (ITPs) assigned to the current user in their role as a trainee. It includes the following key details:

**Trainer:** The name of the individual assigned to guide the trainee through the task.

**Task Number & Task:** The official CFETP task code and description.

**Start Date:** The date the training for that task began.

**Completion Date:** This field displays either the completion date or real-time status (e.g., “In progress” or “Trainer signed / Awaiting trainee acknowledgment”).

**Trainee Signature:** A field where the trainee can confirm task completion after the trainer has signed off.

If the trainer's signature is already completed but the trainee has not signed, a visual badge and confirmation button appear to prompt action.

This view is also displayed for users who serve as supervisors and trainers but have their ITPs as trainees.

## Trainer's view:

### Trainers' trainees:

Menu

- Dashboard
- My trainees
- My ITPs

Welcome, Max K  
Your assigned trainees  
Workcenter: Aircraft Maintenance

Trainees	AFSC Code	Task number	Task	Start date	Completion date	Trainer Signature
Jair	2A534	A3.1.3.1	Periodic/isochronal inspection concepts	Mar 25, 2025	You signed Awaiting trainee acknowledgment	Signed
Rob	2A534	A3.1.1	Perform aircraft safe for maintenance	Jun 09, 2025	In progress	<input type="checkbox"/> Confirm

Create ITP

Log Out

This view displays all Individual Training Plans (ITPs) for the trainees assigned to the currently logged-in trainer. It includes essential information to help trainers track progress and take action on training records.

**Trainee:** The name of the individual trainee.

**AFSC Code:** Displays the user's AFSC code, which changes automatically depending on the user's skill level.

**Task Number & Task:** The official CFETP task code and description.

**Start Date:** The date the training for that task began.

**Completion Date:** This field displays either the completion date or real-time status (e.g., "In progress" or "You are signed / Awaiting trainee acknowledgment").

**Trainer signature:**

- Trainers can sign off on tasks once the trainee has completed them.
- If the trainer has already signed but the trainee has not yet acknowledged it, a status badge alerts them.

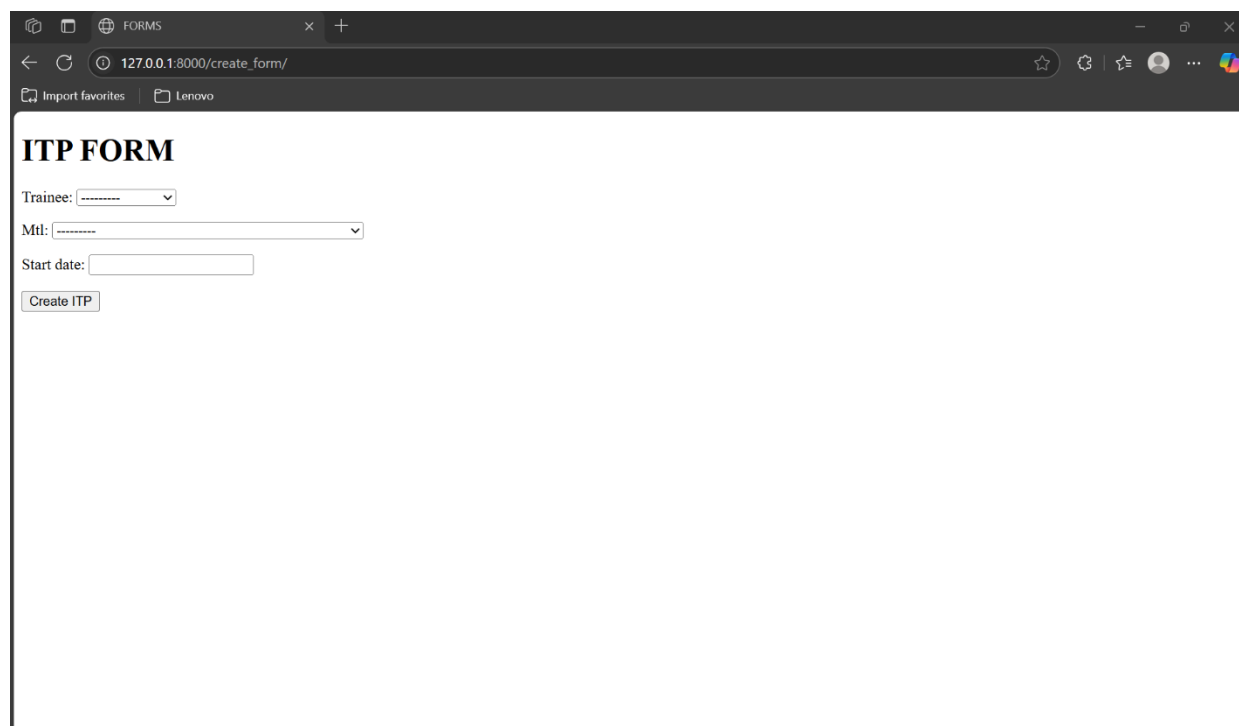
### Create ITP button:

At the bottom of the view, trainers can use the “Create ITP” button to assign a new task to any eligible trainee in their work center. This button opens a pre-filtered form based on trainer permissions and workcenter scope.

### Dual-role handling:

Trainers who are also trainees (dual-role users) will have access to the “My ITPs” tab, which allows them to manage their training while tracking their assigned trainees.

### ITP Form:

A screenshot of a web browser window displaying the "ITP FORM". The browser's address bar shows the URL "127.0.0.1:8000/create\_form/". The form itself has a title "ITP FORM" and three input fields: "Trainee:" with a dropdown menu, "Mtl:" with a dropdown menu, and "Start date:" with a text input field. Below these fields is a button labeled "Create ITP". The browser's tab is titled "FORMS" and the address bar includes "Import favorites" and "Lenovo" links.

This interface allows a trainer or supervisor to create a new Individual Training Plan (ITP) for a selected trainee within their workcenter. The form includes the following input fields:

**Trainee:** A dropdown list of eligible users in the same workcenter who can receive new tasks. This list is filtered by role (e.g., only “Trainee” or “Trainer” below the current user’s rank).

**MTL:** A dropdown of available tasks from the Master Task List associated with the workcenter.

**Start Date:** The date when the assigned training task begins.

**Form behavior:**

- Upon submission, a new ITP record is created, linking the selected trainee and MTL task to the trainer who submitted the form.
- The task will then appear in the trainer's trainee view and the trainee's own ITP dashboard.

**Current form validations:**

- Prevents duplicate ITPs
- Validate trainee's skill level against MTL's minimum level required
- Prevent assigning ITPs to oneself
  - The trainees filtered list excludes the user creating the ITP to prevent self-assignment.
- Ensure MTL belongs to the same workcenter
  - The MTL list is filtered by the user's workcenter, which limits visibility to only local MTLs
- Validate ITP start date is the current date or in the future (not in the past)

This form supports controlled, rank-aware task assignment while maintaining traceability between trainers, trainees, and task records.

**Future implementations:**

- Improve UI design
- Dynamic trainee dropdown with search.
  - It will be helpful when the workcenter has many members.
- Trainee sorting options
- Filtered MTL Dropdown
  - Dynamic filter MTLs based on:
    - Trainee's skill level
    - Tasks the trainee has not yet completed

- Search bar for MTL tasks
- Auto-populate start date.
- Skill level suggestion tooltip:
  - When hovering over an MTL item, show a tooltip with the minimum skill level required
- Success feedback after creation
  - Display a success message with trainee and MTL info after creating an ITP
  - Optionally give a “Create another ITP” button for workflow continuity.

## Supervisor’s view:

## Supervisor’s trainees:

The screenshot shows a web application titled "SUPERVISOR DASHBOARD". The browser address bar shows the URL "127.0.0.1:8000/supervisor\_view/?tab=my\_trainees". A sidebar menu on the left contains the following items: "Menu", "Dashboard", "My trainees", "My ITPs", "Workcenter members", "MTL Management", and a "Log Out" button at the bottom. The main content area displays a welcome message: "Welcome, Michael S", "Your assigned trainees", and "Workcenter: Aircraft Maintenance". Below this is a table with the following data:

Trainees	AFSC Code	Task number	Task	Start date	Completion date	Trainer Signature
Jair	2A534	A3.1.1	Perform aircraft safe for maintenance	Jun 09, 2025	You signed Awaiting trainee acknowledgment	Signed
John Doe	2A534	A3.1.3.1	Periodic/isochronal inspection concepts	May 21, 2025	June 9, 2025	Signed
Max K	2A554	A5.8.6.3.3.3	Basic post-flight	Jun 20, 2025	In progress	<input type="checkbox"/> Confirm

Below the table is a "Create ITP" button.

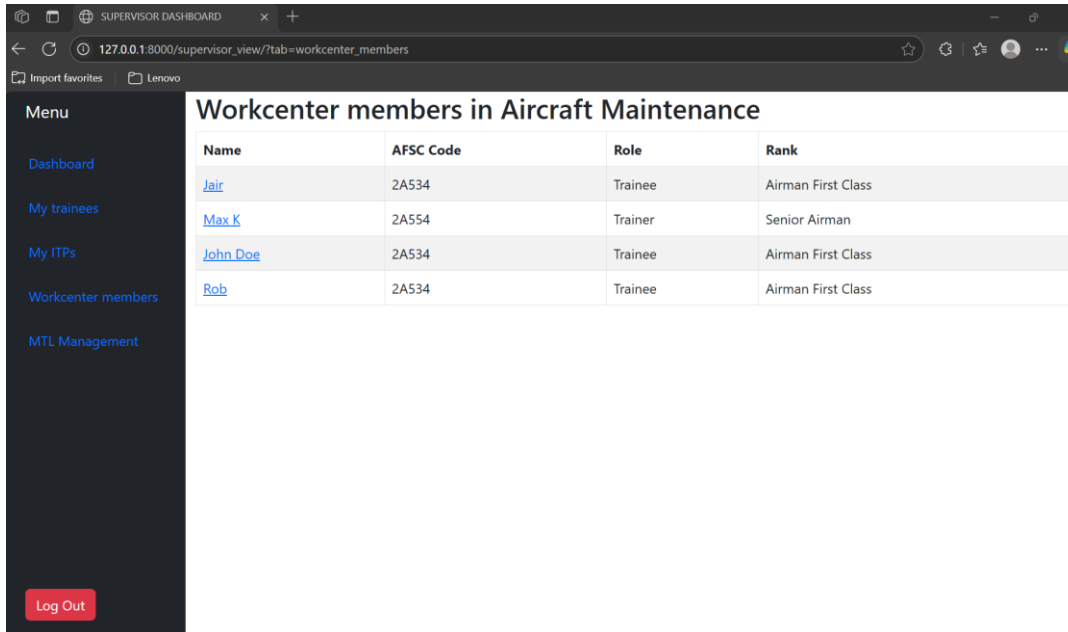
This view allows supervisors to review the ITPs of trainees assigned to them. It functions with the same permissions and structure used for trainers. Supervisors can track task progression, trainer signatures, and trainee acknowledgments across their workcenter. This also includes permission to create ITPs.

## Supervisor ITPs:

### Dual-role handling:

Supervisors who are also trainees (dual-role users) will have access to the “My ITPs” tab, which allows them to manage their training while tracking their assigned trainees, workcenter members, and MTL workcenter tasks.

### Workcenter members:



The screenshot shows a web browser window titled 'SUPERVISOR DASHBOARD' with the URL '127.0.0.1:8000/supervisor\_view/?tab=workcenter\_members'. The left sidebar contains a 'Menu' with options: 'Dashboard', 'My trainees', 'My ITPs', 'Workcenter members' (selected), and 'MTL Management'. A 'Log Out' button is at the bottom of the sidebar. The main content area is titled 'Workcenter members in Aircraft Maintenance' and displays a table with four columns: 'Name', 'AFSC Code', 'Role', and 'Rank'. The table contains four rows of data, with names 'Jair', 'Max K', 'John Doe', and 'Rob' being clickable links.

Name	AFSC Code	Role	Rank
<a href="#">Jair</a>	2A534	Trainee	Airman First Class
<a href="#">Max K</a>	2A554	Trainer	Senior Airman
<a href="#">John Doe</a>	2A534	Trainee	Airman First Class
<a href="#">Rob</a>	2A534	Trainee	Airman First Class

- This screen allows supervisors to view all users assigned to their workcenter and their current AFSC code, role, and rank. Each name in the list is clickable, redirecting to an individual user’s profile edit page, where supervisors can update that user’s rank, role, and skill level if they have the appropriate authority.
- This page uses the same permission structure as the trainer view, ensuring supervisors can only manage users within their workcenter and below their rank level (if enforced).
- This interface helps maintain clarity on team composition and enables quick navigation for personnel management.

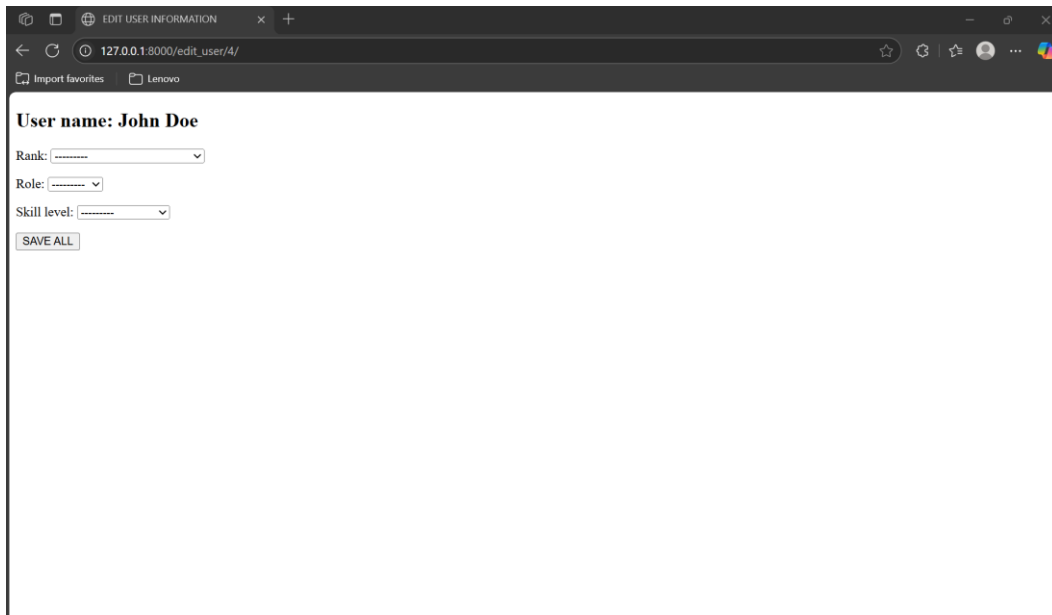
### Future implementations:

- Search bar with live filter



- Allow supervisors to search by name.
- Sort columns.
  - Clicking column headers to reorder members by name, skill level, ranks, or roles. This improves usability for navigating long workcenter member lists.

### Modify the user information form:



The screenshot shows a web browser window with the title 'EDIT USER INFORMATION'. The address bar shows the URL '127.0.0.1:8000/edit\_user/4/'. The form content includes the text 'User name: John Doe' followed by three dropdown menus labeled 'Rank:', 'Role:', and 'Skill level:'. A 'SAVE ALL' button is positioned below these fields.

This screen allows supervisors to update a user's rank, role, and skill level within their work center. Accessible from the Workcenter Members tab, the user's name is displayed at the top for clarity, and both fields are presented as dropdowns pre-populated with allowed options.

The available roles in the dropdown are filtered based on the user's skill level and rank to prevent improper promotion or demotion.

Once changes are made, clicking "Save All" commits the updates, reflecting immediately in the member listing table.

### Current validation form:

- The system includes form-level validation that compares the selected rank and skill level during user creation or updates. It ensures the user's rank is appropriate for the desired

skill level. For example, if a user selects a Journeyman (5) skill level, their rank must meet or exceed the minimum required rank level (e.g., Senior Airman). If this condition is not met, a `ValidationError` is raised with an appropriate message, preventing inconsistent data entry.

- To avoid unintended behavior, all fields must be allowed to submit a form.

### Future implementations:

- Improve the UI design
- Allow fields in the edit user form to be pre-filled with the user's current data. The existing value should remain unchanged upon form submission if the supervisor does not modify a field. This avoids the required re-selection of every field and improves form usability.
- Implement training journals in this view

### MTL Management:

Task number	Task name
A3.1.1	Perform aircraft safe for maintenance
A3.1.3.1	Periodic/isochronal inspection concepts
A5.8.6.3.3.3	Basic post-flight
A9.8.4.1	Team supervisor

This screenshot displays the "MTL Management" tab of the Supervisor Dashboard. It shows the MTL (Master Task List) tasks currently assigned to the supervisor's work center, "Aircraft Maintenance."

#### Key Features in the View:

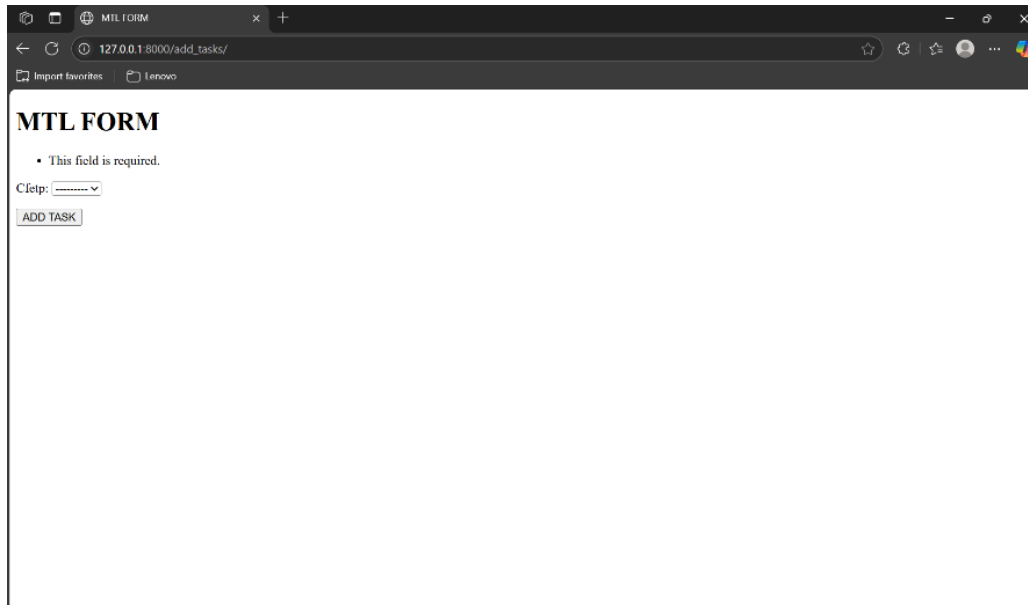
- Task Number and Task Name columns present a structured view of each MTL entry.
- Each row represents one task linked from the CFETP, customized to the specific workcenter.
- The "Add task" button allows supervisors to include additional tasks into their MTL, filtered to prevent duplicates and ensure only relevant tasks (based on workcenter and existing records) are displayed.

This view is restricted to supervisors and is essential for customizing training paths by selecting relevant tasks from the CFETP based on mission needs.

#### Future implementations:

- Delete MTL task option
- Sorting columns:
  - Clicking column headers to reorder tasks numerically (by task number) or alphabetically (by task name). This improves usability for navigating long task lists.
- Search bar with live filter
  - Allow supervisors to search by task number or name to instantly narrow options.

#### Add tasks to MTL form:



MTL FORM

- This field is required.

Cfetp:

ADD TASK

This screenshot shows the MTL Form where supervisors can add new tasks not yet included in their workcenter Master Task List (MTL) by selecting from available CFETP tasks. Currently, the form has:

- A **dropdown menu** to choose a task from the CFETP (Career Field Education and Training Plan).
- A **submission button** labeled “Add Task.”
- A validation message, "This field is required," appears when the form is submitted without selecting a task.

#### **Current form validation:**

- Validation prevents empty submissions.

#### **Future implementations:**

- Task grouping or filtering by category.
  - Organize tasks by task group, AFSC, or minimum skill level
  - This will reduce cognitive load and improve task discovery.
- Search bar with live filter

- Allow supervisors to search by task number or name to instantly narrow options.

Link to code: <https://github.com/JBMDL-Internship/Training-Program>

Notes:

Username to test the program:

- jair
- maxk
- michaelS
- john
- trainee1

Password:

140373@@@