This document follows the development of Eagle Deploy

- ## Initial Set Up and getting Tanner's base files running.

- ## Getting a YAML playbook running with main.go when initialized through CLI.

- ## Adding a friendlier user menu in CLI.

- ## Adding a test HTML for a local browser

Current Status:

- **Basic Playbook Execution:**
    - **Supports parsing and running YAML-defined tasks on specified hosts.**
- **CLI Interface:**
    - **Offers an interactive menu for task selection and configuration, including logging and error handling.**

Remaining Requirements:

- **Concurrency:**
    - **Needs improvements for executing tasks across multiple nodes simultaneously.**
- **State Management:**
    - **Requires mechanisms to track and manage the execution state of tasks.**
- **Class-based Refactoring:**
    - **Refactoring into a more modular, object-oriented structure would enhance maintainability.**
- **Plugins and Modules:**
    - **Integration of plugins and modules for customizable task execution and extended functionality.**

Installation and Running files from Tanner's initial setup.

```
[EagleDeploy3 ~ # ls
eagle           hello-macos     hello.go        main.go
EagleDeploy3 ~ # CGO_ENABLED=0 GOOS=darwin GOARCH=amd64 go build -o eagle main.go

EagleDeploy3 ~ # ./eagle -e playbook.yaml

Tool name is: eagle
Executing YAML file: playbook.yaml
EagleDeploy3 ~ # ./eagle -l playbook

Tool name is: eagle
Listing YAML files related to: playbook
EagleDeploy3 ~ # ./eagle -h

Tool name is: eagle
Help Page:
Commands:
-e <yaml-file>: Execute the specified YAML file.
-l <keyword>: List YAML files or related names in the EagleDeployment directory.
-h: Display this help page.
EagleDeploy3 ~ #
```

```
proxmox ~ # cd testDeploy
testDeploy ~ # ls
README          go.mod          hello-macos     main.go
eagle           go.sum          hello.go        playbook.yaml
testDeploy ~ # go version

go version go1.23.2 darwin/amd64
testDeploy ~ # go build main.go

testDeploy ~ # ./main

Tool name is: main
Usage: eagle <command> [options]
testDeploy ~ # go run main.go

Tool name is: main
Usage: eagle <command> [options]
exit status 1
testDeploy ~ # go mod tidy

testDeploy ~ # ls -l

total 17896
-rw-r--r--  1 diegonarvaez  staff        3715 Nov  2 05:08 README
-rwxr-xr-x  1 diegonarvaez  staff     3332864 Nov  2 05:08 eagle
-rw-r--r--  1 diegonarvaez  staff          64 Nov  2 05:08 go.mod
-rw-r--r--  1 diegonarvaez  staff         360 Nov  2 05:08 go.sum
-rwxr-xr-x  1 diegonarvaez  staff     2245888 Nov  2 05:08 hello-macos
-rw-r--r--  1 diegonarvaez  staff          77 Nov  2 05:08 hello.go
-rwxr-xr-x  1 diegonarvaez  staff     3549584 Nov  2 05:09 main
-rw-r--r--  1 diegonarvaez  staff        4423 Nov  2 05:08 main.go
-rw-r--r--  1 diegonarvaez  staff         321 Nov  2 05:08 playbook.yaml
testDeploy ~ # file main

main: Mach-O 64-bit executable x86_64
testDeploy ~ # _
```
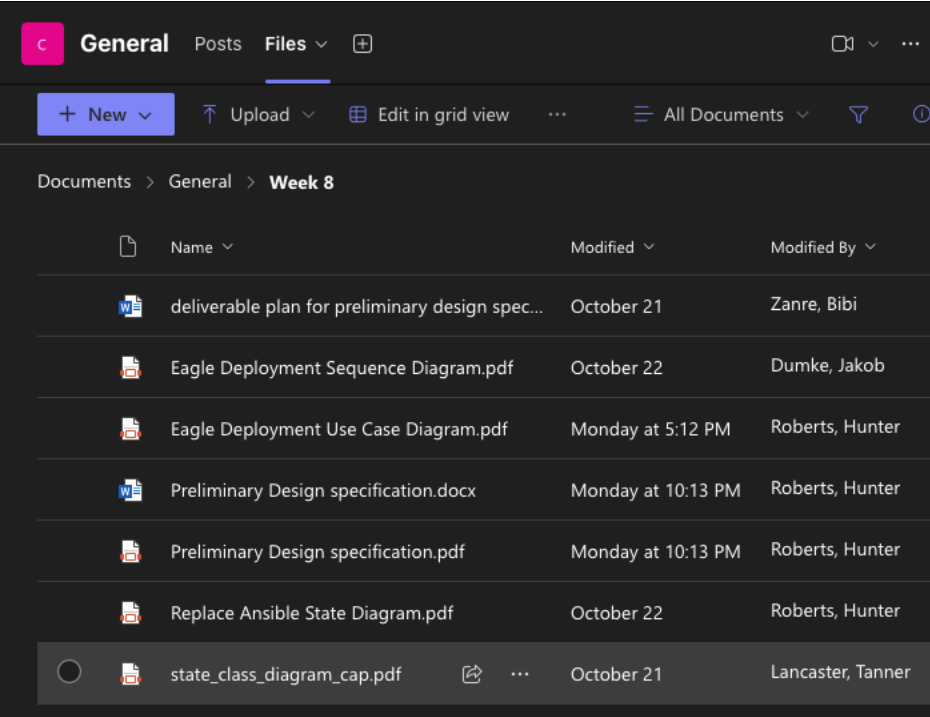
Created a basic outline based on the files from:

The project runs with the initial set instructions but not functionality, (EagleDeploy_CLI_DO_NOT_CHANGE), this is the base line result.

```
EagleDeploy3 ~ # ./eagle -e playbook.yaml

Tool name is: eagle
Executing YAML file: playbook.yaml
Parsed YAML content: map[hosts:[192.168.1.10 192.168.1.11] name:Sample Playbook settings:map[retries:3 timeout:3
0] tasks:[map[command:apt-get update name:Update package list] map[command:apt-get install -y nginx name:Install
 nginx] map[command:systemctl start nginx name:Start nginx service]] version:1]
EagleDeploy3 ~ # ./eagle -e playbook.yaml -hosts 192.168.1.10,192.168.1.11

Tool name is: eagle
Executing YAML file: playbook.yaml
Parsed YAML content: map[hosts:[192.168.1.10 192.168.1.11] name:Sample Playbook settings:map[retries:3 timeout:3
0] tasks:[map[command:apt-get update name:Update package list] map[command:apt-get install -y nginx name:Install
 nginx] map[command:systemctl start nginx name:Start nginx service]] version:1]
EagleDeploy3 ~ # ./eagle -l playbook

Tool name is: eagle
Listing YAML files related to: playbook
Found YAML file: playbook.yaml
EagleDeploy3 ~ #
```

Implemented a menu interface in CLI (EagleDeploy_CLI) still lacks functionality according to the requirements in diagrams.

```
EagleDeploy_CLI — main ‹ go run main.go — 112×61

EagleDeploy_CLI ~ # go run main.go


EagleDeploy Menu:
1. Execute a Playbook
2. List YAML Files
3. Manage Inventory
4. Enable/Disable Detailed Logging
5. Rollback Changes
6. Show Help
0. Exit
Select an option: 1
Enter the path to the YAML playbook file (or type 'back' to return to the menu): back

EagleDeploy Menu:
1. Execute a Playbook
2. List YAML Files
3. Manage Inventory
4. Enable/Disable Detailed Logging
5. Rollback Changes
6. Show Help
0. Exit
Select an option: 2
Enter keyword to filter YAML files (or type 'back' to return to the menu): back

EagleDeploy Menu:
1. Execute a Playbook
2. List YAML Files
3. Manage Inventory
4. Enable/Disable Detailed Logging
5. Rollback Changes
6. Show Help
0. Exit
Select an option: 4
Enable detailed logging? (y/n, or type 'back' to return to the menu): back

EagleDeploy Menu:
1. Execute a Playbook
2. List YAML Files
3. Manage Inventory
4. Enable/Disable Detailed Logging
5. Rollback Changes
6. Show Help
0. Exit
Select an option: _
```
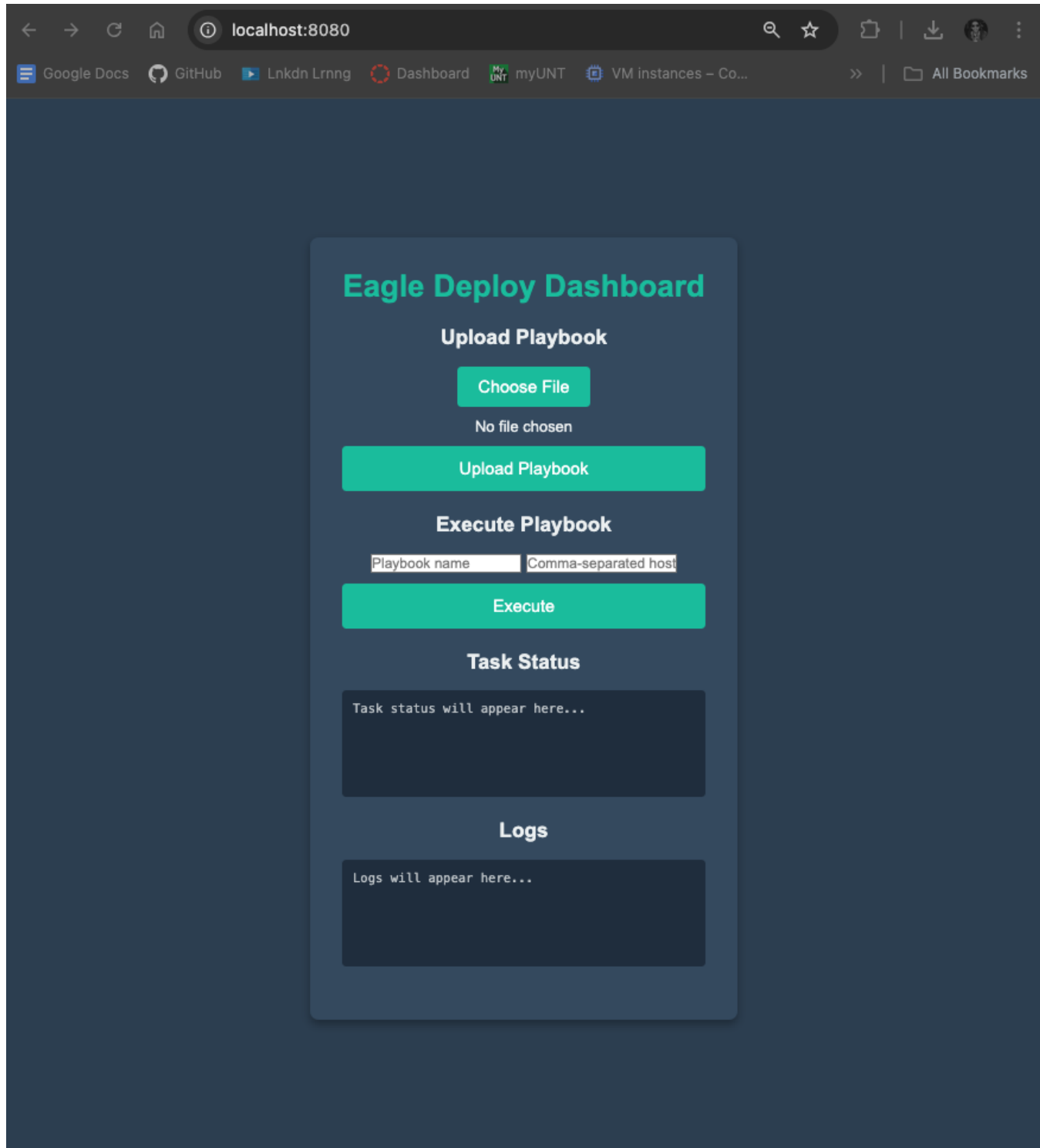
With Local Interface

```
EagleDeploy3_interface ~ # go run main.go

Starting server on :8080...
```

SUMMARY OF DEVELOPMENT MODELS

```
∨ EagleDeployDev
    > EagleDeploy_CLI
    > EagleDeploy_CLI_DO_NOT_CHANGE
    > EagleDeploy_Initial_Setup
    > EagleDeploy_test
    > EagleDeploy3_LocalBrowsrInterface
```

Both Initial models of CLI or Web Browser

```
∨ EagleDeploy3_LocalBrowsrInterface    ●
    ≡ eagle                            U
    ⟋ go.mod                           U
    ≡ go.sum                           U
    ≡ hello-macos                      U
    GO hello.go                        U
    <> index.html                      U
    GO main.go                         U
    ! playbook.yaml                    U
    ⓘ README                           U
    ⬇ READMEsetup.md                   U
```

```
∨ EagleDeploy_CLI
    ≡ eagle
    ⟋ go.mod
    ≡ go.sum
    ≡ hello-macos
    GO hello.go
    GO main.go
    ! playbook.yaml
    ⓘ README
    ⬇ READMEsetup.md
```