Final Project Guidelines

Schedule

17.12.2025 - Announcement
24.12.2025 - Q&A Session
30.12.2025 - Presentations

Guidelines

1. Each group has assigned a configuration in the Midterm Project Guideline. You must follow configuration entirely of your task.
2. Addition to **Step 1**, the project must satisfy following properties:
    1. **Dockerfile;** a **Dockerfile** and create a Docker image that can be deployable on **Azure App Services**.
        - **Dockerfile** should be configured properly to allow SSH access.
        - Ports necessary for SSH and serving the web application must be exposed properly.
        - The initialization shell script for starting SSH and web server.
    2. **Azure Container Registry (ACR)**; an **ACR** must be created.
    3. **GitHub Actions Workflow**; must be triggered on the relevant branch of the git workflow assigned to each student at **Step 1** and Docker image must be built by the **GitHub Actions workflow** and pushed to the **ACR** repository.
        1. Azure login using `AZURE_CREDENTIALS`
        2. Authenticate with **ACR** using `REGISTRY_USERNAME` and `REGISTRY_PASSWORD` .
        3. Build & Push to the **ACR**.
        4. Deploy to the **App Service**.
    4. **Deployment**; the deployment must be triggered by the **GitHub Actions workflow**.
        - A "User Assigned Identity" with proper permissions must be assigned to the **App Service** to access **ACR**.

> ⚠ **Warning**
>
> 1. Each step contains various configurations to communicate and work properly. Be aware of intermediate steps taken at each related steps.
> 2. Each sub task of **Step 2** must be configured using terminal. (Use `gh` command line utility of GitHub (see Installation and quickstart))

Submissions

The assignment page for this project will be enabled on Yasar University Remote Learning System. Each student should submit a single zip file that contains the following before 30.12.2025 14:40;

- Zip of your git repository. Named as `<studentid>.zip`
- Word file that contains list of links that you have benefited during development. Named as `<studentid>.doc`
    - The word file should contain related commands and their outputs (Azure CLI gives a JSON output for executed actions, keep every output. You may print the value of command line variables with `echo $THE_VARIABLE`).
- Downloaded ARM Template ZIP file of the resource group.
- Run the command and fetch the `activity_logs.json` file.
    - macos and linux: `az monitor activity-log list --start-time 2025-12-17T15:40:00Z --end-time 2025-12-30T14:40:59Z --output json > activity_logs.json`
    - windows powershell: `az monitor activity-log list --start-time 2025-05-17T15:40:00Z --end-time 2025-12-30T14:40:59Z --output json | Out-File -FilePath "activity_logs.json"`

- windows cmd: `az monitor activity-log list --start-time 2025-05-17T15:40:00Z --end-time 2025-12-30T14:40:59Z --output json > activity_logs.json` **

Zip all of these files and upload a single ZIP file.

> ⚠ **Terminal response to the executed commands will be used for cross checking with available evidence if a suspicion of plagiarism arise. Not having detailed proof may affect grade of your work.**

Grading

> ⚠ **Each group member must attend Final Project Presentations that will take place at Class hours on 13.06.2025 (Presentation order will be published later, stay tuned).**
>
> - This is a group assessment, **collaboration between groups is prohibited**.
> - Any **evidence that indicate potential collaboration** may affect grade of your work.
> - You must keep track of online resources that you use during the development. Any action you take must depend on some documentation. If you use ChatGPT, CoPilot or Gemini you must be able to **add shared link of the chat session**. (Sharing resources is also considered as collaboration and prohibited)
> - Students who **miss presentations without an excuse** (that officially accepted by the department) will be **graded as zero even if they submit a work**.
> - Students won't be able to join final presentation **if they fail the course by attendance requirements**.
> - You will be asked to **demonstrate your ability make change on the configuration** or make additional minor configurations depending on your configuration, this will affect your grade on that part of the configuration.
> - You must be ready to **answer questions and demonstrate that the deployment works in a short period (10-15 mins)**.
> - Bring a laptop (with **SourceTree or Fork like git tool installed** to speed up the evaluation process) with and HDMI cable, you will be asked to connect to a projector (don't prepare a powerpoint).

> ⓘ **Missing parts of the midterm project will be evaluated again. Your work can get half of the grade points back, if you complete the missing parts from the midterm.**

#	Case	Grading
1	Step 1 + Step 2	0.5 x (Step 1 grade) + 0.5 (Step 2 grade)