**Docker Assignment**

**Containerization**

* Create Dockerfiles for both the .NET Web API and the Angular frontend.
* Ensure images are built using multi-stage builds to minimize size.
* Add appropriate .dockerignore files to exclude unnecessary files.

**Application Orchestration**

* Define a docker-compose.yml that runs both services together.
* Configure networking so the Angular frontend can call the API service.
* Expose services on configurable ports for local access.
* Implement basic health checks for both services.

**Configuration Management**

* Use environment variables (via .env file) for settings such as ports, API base URL, and image version.
* Ensure the frontend can be configured to communicate with the API via environment-specific base URLs.

**Image Publishing**

* Tag images with both latest and semantic version tags.
* Push images to Docker Hub under the correct repository.
* Verify images can be pulled and run on a different machine.

**Docker Compose Prod**

* Define a docker-compose.prod.yml that runs both services together using pushed images from docker hub.

**Documentation**

* Provide a README with clear setup instructions:
  + Building images
  + Running with Docker Compose
  + Testing connectivity between services
  + Pushing images to Docker Hub
  + Troubleshooting common issues

**Acceptance Criteria**

* Containers build and run successfully on a clean machine.
* Both services are healthy and accessible via the defined ports.
* The Angular app communicates successfully with the .NET API.
* Docker Hub contains the pushed images with correct tags.
* Documentation is complete and easy to follow.

**Submission**

* Till September 03, 2025