**Programming Exercise**

**Questions**

1. What commands/options did you use to get the index.html file from the dev1 branch to the main branch?

* To move the index.html file from the dev1 branch to main, I first committed and pushed the file to the dev1 branch using:

git add index.html

git commit -m "Add index.html"

git push origin dev1

Then, I switched to main, merged dev1, and pushed:

git checkout main

git merge dev1

git push origin main

This ensured the index.html file was available on the main branch for deployment.

1. How long did the Build and Deploy take?

* The Azure Static Web App build and deploy process took approximately **1–2 minutes** after merging into the main branch. This includes detecting the GitHub push, running the automated CI/CD pipeline, building the site, and pushing the deployment to Azure’s servers.

A screenshot of a phone

AI-generated content may be incorrect.

1. What is displayed when you click on the ‘Click Me!’ button

* When you click the **‘Click me!’** button on the deployed web page, the content inside the <div> element with the id="output" changes to display **“Hello World!”**. This is powered by a simple JavaScript onclick event on the button that updates the div’s inner HTML. Before clicking, the div is empty; after clicking, the text “Hello World!” appears below the button.

A white background with black border

AI-generated content may be incorrect.

**50-100 words analysis**

**Section 1 – Git Branches**

In Part 1, I established a new GitHub repository and configured two branches: `main` and `dev1`. This branching approach enables secure feature development in `dev1` while maintaining stability in the `main` branch. I confirmed that both branches were established and correctly pushed to GitHub, which is important for merging changes and keeping a tidy project history. The screenshot displays the branch dropdown indicating that both `main` and `dev1` are available.

**Section 2 – Building an Azure Static Web Application**

In Part 2, I utilized my Azure free account to set up a Static Web App called `helloworld2`. I linked it to the `main` branch of my GitHub repo. This configuration guarantees that every commit or merge to the `main` branch will initiate automatic deployments through Azure’s CI/CD pipeline. The screenshot verifies that the connection between Azure and the repository was successful, indicating that the app is ready for deployment.

**Section 3 – Incorporating index.html into dev1 (Examination)**

In Part 3, I incorporated a new `index.html` file into the `dev1` branch featuring a basic “Hello World” button that refreshes a div upon being clicked. This document replicates a simple front-end function, showcasing how development can occur securely within a feature branch. I made the changes and pushed them to `dev1`. The image displays the document located in the `dev1` branch on GitHub.

**Section 4 – Integration and Deployment (Evaluation)**

In Part 4, I integrated the `dev1` branch into `main` and initiated the Azure deployment workflow. I checked the GitHub Actions tab, and the deployment was successful (as displayed in the screenshot). I then opened the live URL given by Azure and verified that the page loaded properly, showing the Hello World button and its output. This phase illustrates how the integration of merging and CI/CD pipelines streamlines dependable updates.