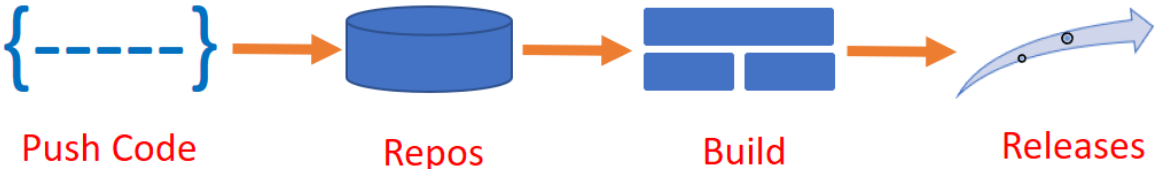
# 10.1 Deploy Azure Web App using DevOps Starter for GitHub

**Objectives:**

- Create a GitHub account.
- Use DevOps Starter to deploy a Node.js app.
- Examine the GitHub workflow.
- Commit changes to GitHub and automatically deploy them to Azure.

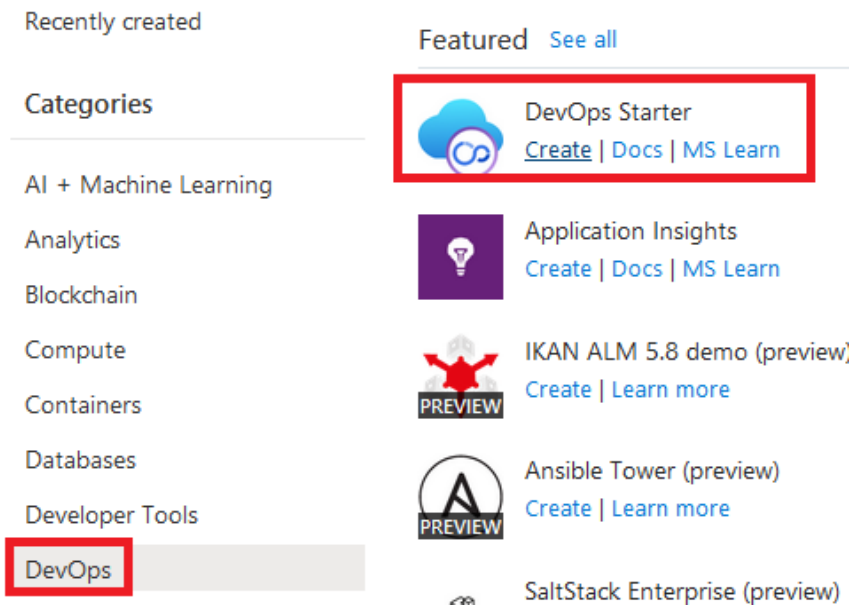



## Part 1. Create a GitHub account

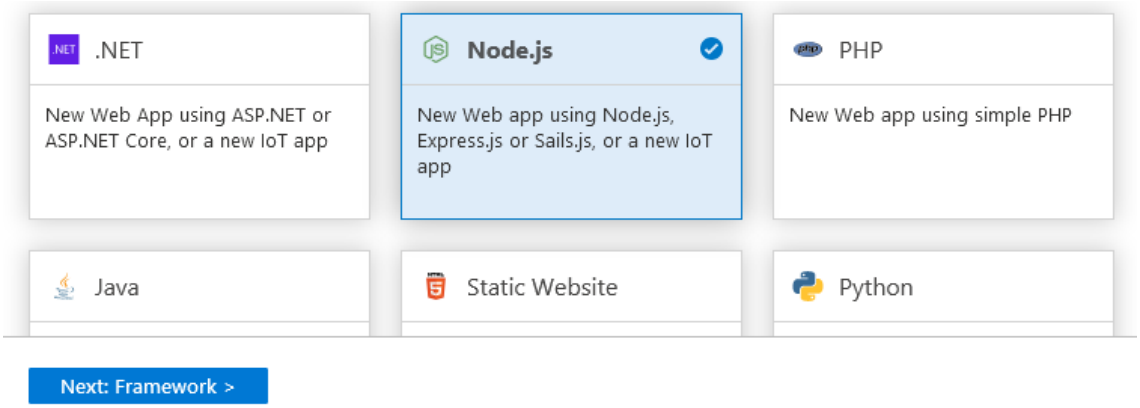
1. Go to https://github.com/
2. Create a GitHub account if you do not have one.

## Part 2. Create a DevOps Starter with GitHub to deploy a Node.js app

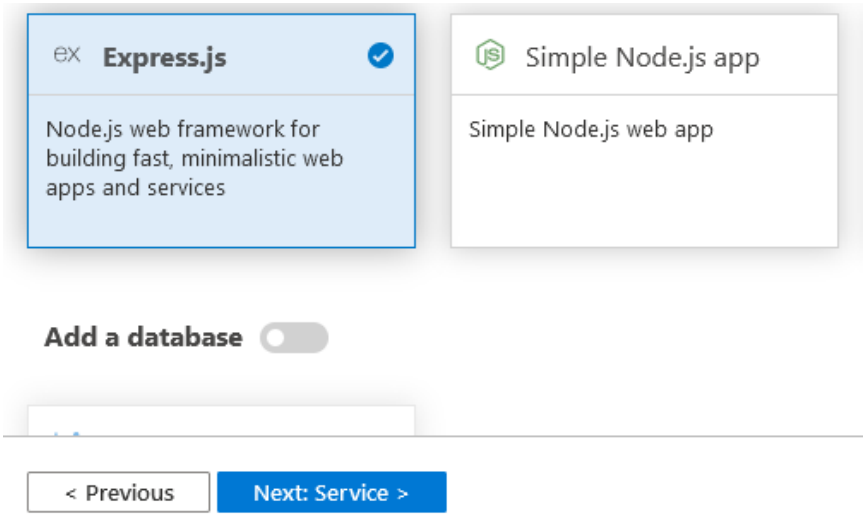
3. Sign onto Azure Portal.
4. Select the Create a resource button found on the upper left corner of the Azure portal.
5. Click on "DevOps", then "DevOps Starter".



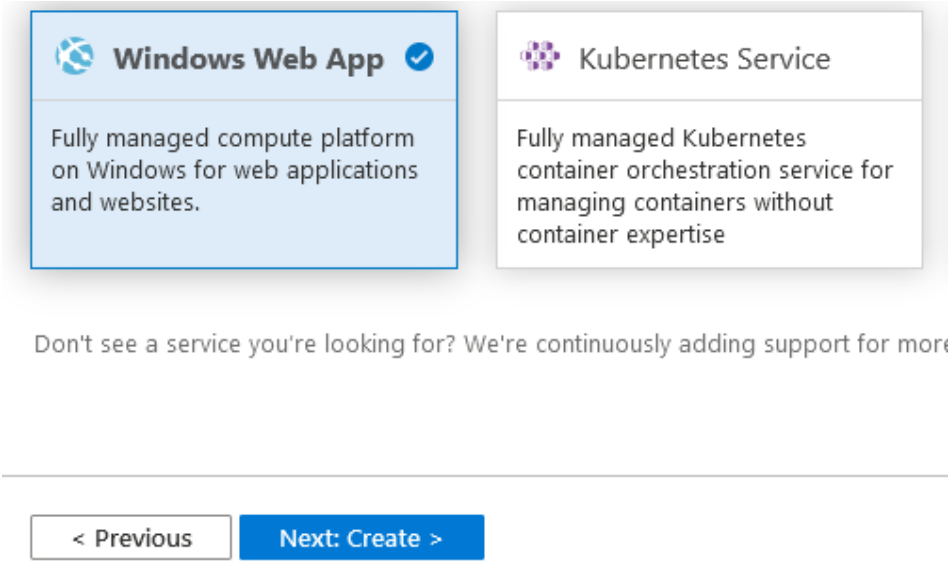

6. Select "**Node.js**", click on "Next: Framework".



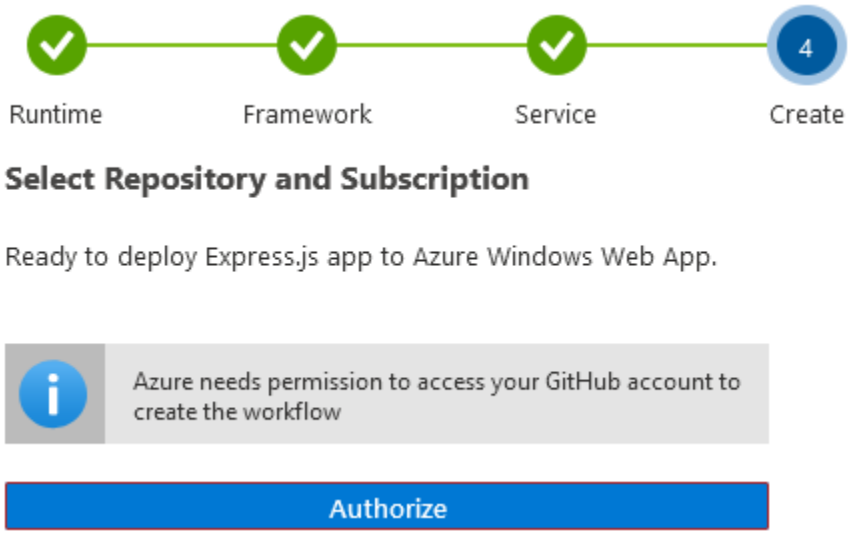

7. Select “Express.js”, click on “Next: Service”.



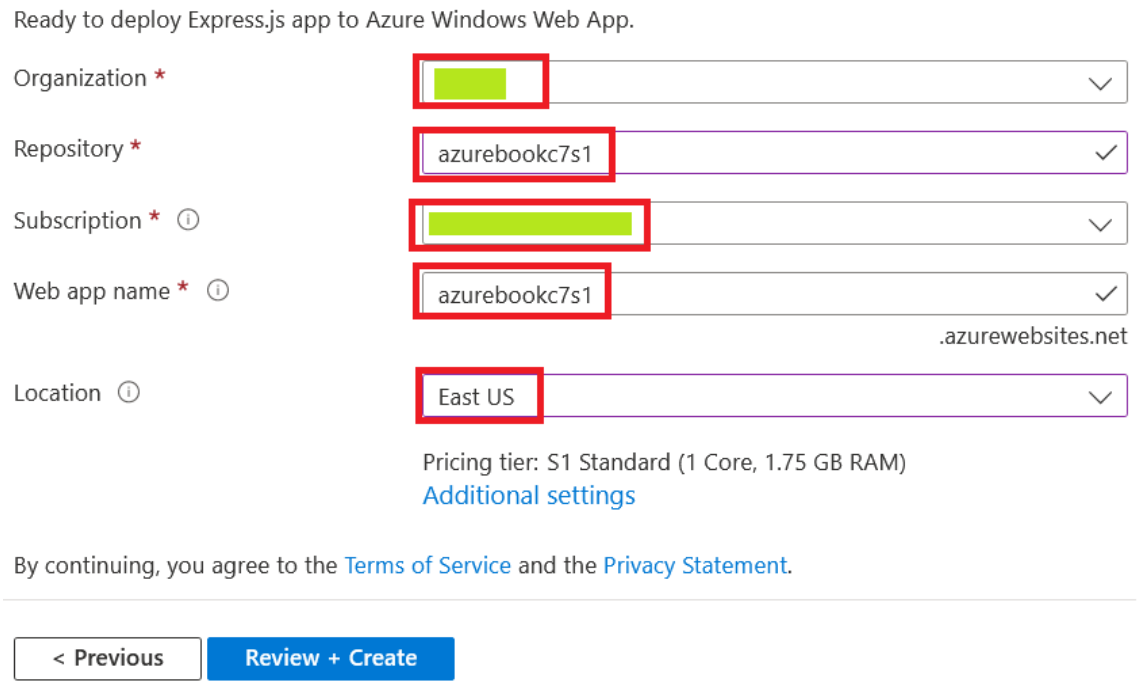

8. Select the Windows Web App, and then select “Next: Create”.



9. Click on “Authorize” to sign in GitHub.



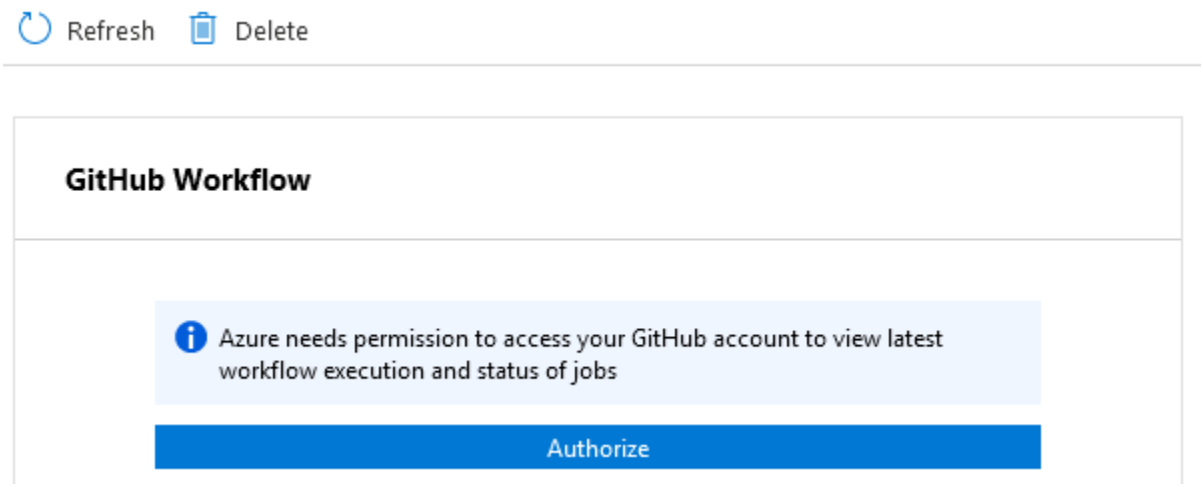

10. Assign Repository, Web app name, and location. Click on “Review + Create”.



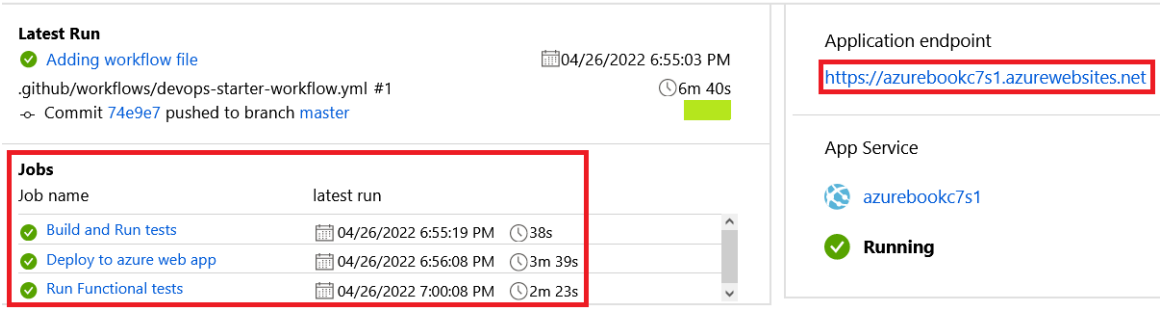

11. Click on “Go to Resources”, when deployment is completed.

## Part 3. Build, test, and deploy the web app with DevOps

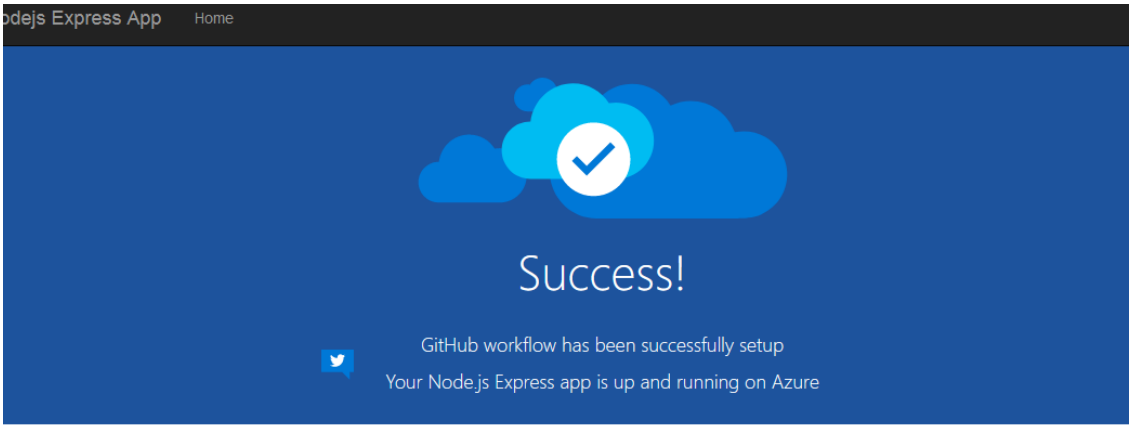
12. Click on “**Authorize**”.




13. Examine the workflow. It might take several minutes to build, test, and deploy the web app. Copy web app **url** (endpoint) and visit this url in a different browser.

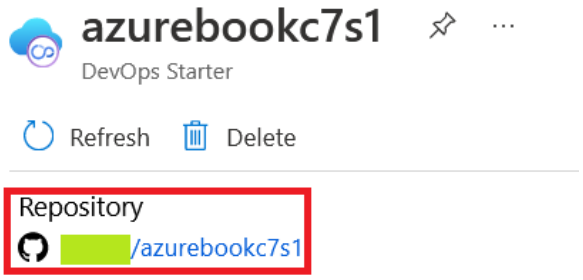



14. This is what you will see.

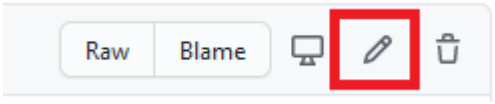



## Part 4. Make change to source code and rebuild, test, and deploy the web app with DevOps

15. On the left of the DevOps Starter dashboard, select the link for your main branch. This link opens a view to the newly created GitHub repository.



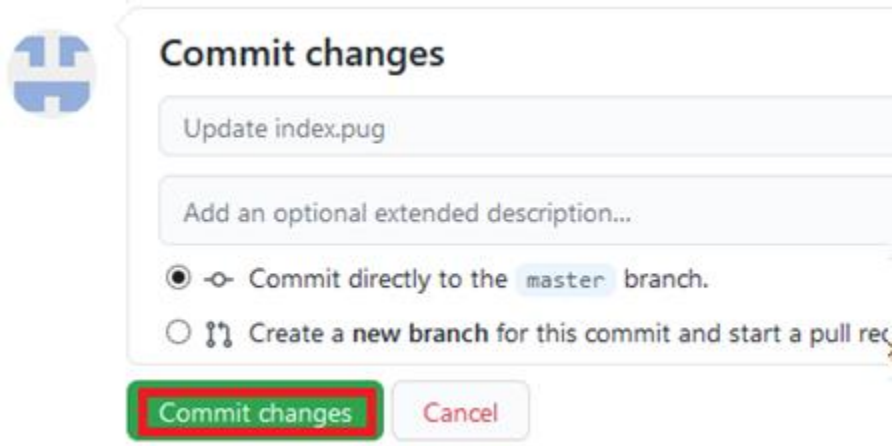

16. On the left side of the browser, go to **/Application/views/index.pug** file.
17. Select Edit (the pencil symbol).



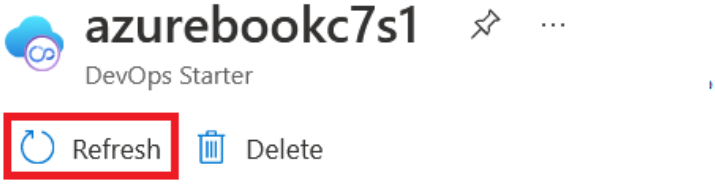

18. Make change to Line 13: replace "Success" with "Welcome to Azure World!".

```
10                  img(src='/images/tweetThis.svg')
11              .content-body
12                  .success-text
13                      p Welcome to Azure World!
14                  .description
15                      p GitHub workflow has been successfully setup
16                  .description
```

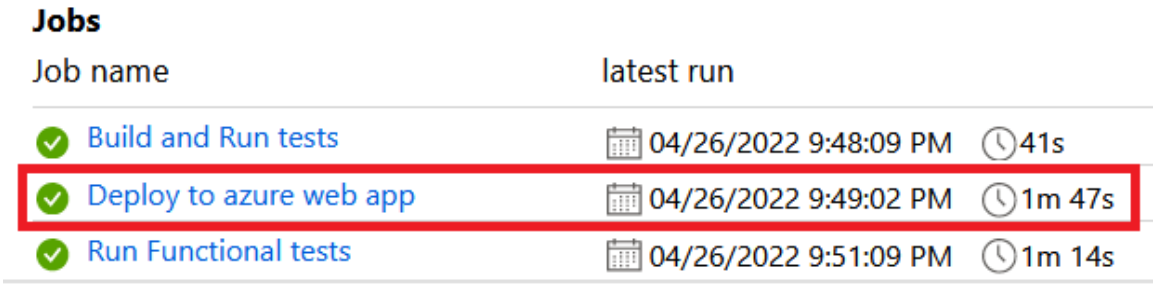
19. Click "Commit changes".



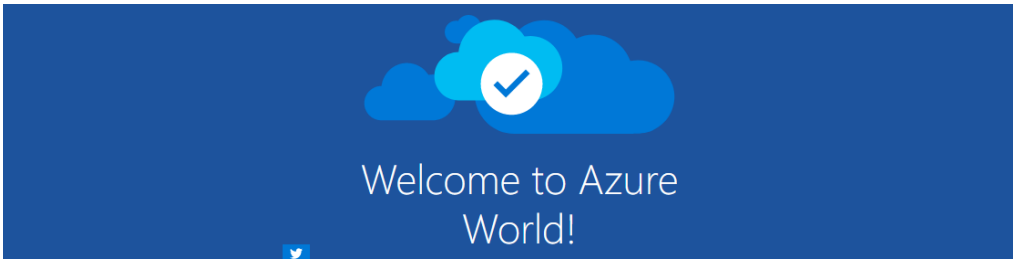

20. In your browser, go to the DevOps Starter dashboard. Click on "Refresh".



21. You should now see a GitHub workflow build-job in progress. The changes you just made are automatically built and deployed via a GitHub workflow.
22. This may take several minutes. Click on "Refresh" if needed. When the time "Deploy to azure web app" is no longer changed after refreshing, the deployment is complete.

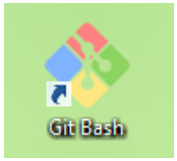



23. Go to your application web site (Application endpoint) to verify the changes.

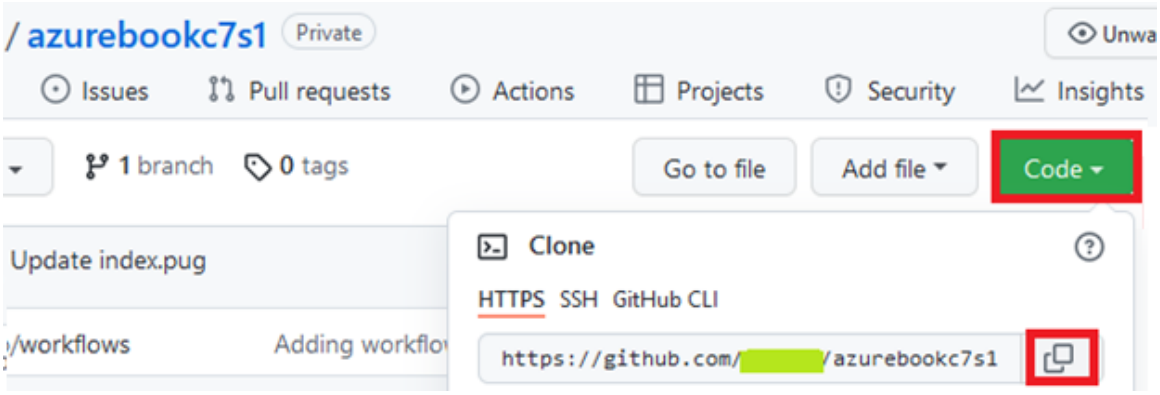



**Part 5. Make the change locally, merge it to GitHub, rebuild, test, and deploy the web app**

24. Install Git Bash (https://git-scm.com/downloads) if you do not have it on your computer.
25. Create a shortcut of Git Bash on your desktop (optional, for easy access).




26. In your GitHub account, go to the project folder. Click "Code" and copy the Clone URL.



27. Start (double click on) Git Bash. **Note here: for some Windows users, Git Bash has some issues. Alternatively, you can use Windows Command Prompt.**
28. Set your account's default identity by running the following git (for first time user only).

```
$ git config --global user.email "you@youremail.com"
$ git config --global user.name "Your Name"
```

29. Execute the following commands to create a local project:

```
$ cd Desktop
$ mkdir myproject
$ cd myproject
```

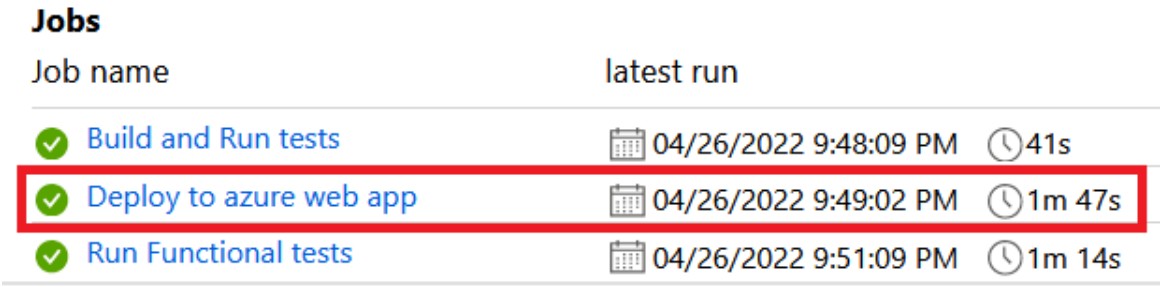
30. To clone the GitHub repository, execute the following command (replace url with the one you copied at Step 26):

```
$ git clone url
```

31. In your local repository (myproject folder on Desktop), open File: **/Application/views/index.pug**.
32. On Line 13: replace "Welcome to Azure World!" with "Hello from Azure User!".
33. Save the changes.
34. From Git Bash (or Windows Command Prompt), execute the following commands.

```
$ cd azurebookc7s1
$ git add -A
$ git commit -m "change a file"
$ git push
```

35. In your web browser, go to DevOps Starter dashboard. Click on "Refresh".
36. You should now see a GitHub workflow build-job in progress. The changes you just made are automatically built and deployed via a GitHub workflow.
37. This may take several minutes. Click on "Refresh" if needed. When the time "Deploy to azure web app" is no longer changed after refreshing, the deployment is complete.




38. Go to your application web site (Application endpoint) to verify the changes. You should see "Hello from Azure User!".
39. Delete all resources from Azure Portal.