


Github Actions Code Challenge

Challenge:

Implement a GitHub Actions workflow that triggers on every push to the main branch or whenever a pull request is merged into the main branch of a repository. This workflow should perform the following steps:

1. Check out the repository code.
2. Install project dependencies.
3. Run unit tests.
4. Write a script (in any preferred programming language) to extract relevant information from the commit or merged pull request and format it into a changelog entry.
5. The changelog entry should include the commit number or pull request number, commit message or pull request title, author, and any labels associated with the commit or pull request.
6. Append the generated changelog entry to the  [CHANGELOG.md - Generate and announce updates to your users.](#) file in your repository.
7. Ensure that the workflow runs successfully and updates the changelog file upon each commit or merged pull request.
8. If all unit tests pass and changelog entry appended, mock deploy the application to a staging environment.

You can assume that the project uses a package manager like npm for managing dependencies and has a script for running unit tests.

Your task is to create a workflow file in the repository that defines the GitHub Actions workflow to fulfil the requirements mentioned above.

Snippet:

```
1 # .github/workflows/main.yaml
2
3 name: <write workflow name here>
4
5 on:
6   push:
7     branches:
8       - <write push branch name here>
9   pull_request:
10    types: [<write pull request types here>]
11
12 jobs:
13   <write job id here>:
14     name: <write job name here>
15     runs-on: <write image name here>
16
17     steps:
18       - name: Checkout code
19         uses: <write action here>
20
21       - name: Install dependencies
22         run: <write command here>
23
```

```
24 - name: Run unit tests
25   run: <write command here>
26
27 - name: Extract and append changelog
28   run: |
29     <write commands here>
30
31 - name: Deploy to staging
32   if: <write condition here>
33   run: |
34     # Mock deployment process for staging environment
35
```