

Epic: Modernize Tax Calculator

Epic Title: Modernize Tax Calculator

Epic Description:

The Tax Calculator currently runs as a manually deployed static application and lacks a robust pipeline in place. This epic focuses on modernizing the application to deploy it on IBM Cloud. The application will not just be lifted and shifted to the cloud but will be containerized using Docker. The deployment will be managed through an automated pipeline, which will also ensure that all unit tests pass before deployment.

User Stories

1. Containerizing the Application

- **Title:** Containerize the Tax Calculator Application
- **Description:**

To ensure that each unit of code performs as expected, the application will be containerized using Docker. Once containerized, the application will run within a Docker container. The container will ensure consistency across different environments, and deployment can be automated more easily.
- **Acceptance Criteria:**
 - The application is successfully containerized using Docker.
 - The Docker container runs without errors in a local environment.
 - All required dependencies are included in the container image.

2. Deploying on IBM Cloud

- **Title:** Deploy the Application on IBM Cloud
- **Description:**

The application will be deployed on IBM Cloud, utilizing IBM Cloud Code Engine. This transition will eliminate the reliance on self-managed or in-house virtual machines and provide scalability, high availability, and better management features.
- **Acceptance Criteria:**
 - The application is successfully deployed on IBM Cloud using IBM Cloud Code Engine.

- The application runs without issues in the cloud environment.
- Cloud scaling is tested to handle load changes.

3. Creating a Pipeline for Packaging and Deploying the Application

- **Title:** Automate Packaging and Deployment with Tekton Pipeline
- **Description:**

The current process of packaging and deploying the application involves too many manual steps. A Tekton pipeline will be used to automate the build, test, and packaging stages. The pipeline will also ensure that all unit tests pass before deployment, making the process faster, more reliable, and more consistent.
- **Acceptance Criteria:**
 - The Tekton pipeline is set up to automate the build, test, and deploy process.
 - The pipeline includes a step to run unit tests before deployment.
 - The pipeline runs without errors and automatically deploys the application to IBM Cloud after a successful build and test.



Next Steps for Task Completion:

1. **Log into your Kanban board** (or use your chosen tool) and create the **Epic** with the title and description above.
2. Break the Epic down into the **three user stories** provided, writing them as tasks in your Kanban board.
3. Ensure each user story is properly described, includes acceptance criteria, and can be assigned for future implementation.