**Assignment 2**

1. **Azure MySQL Creation Process**

* Step 1: Created an Azure Database for MySQL flexible server named companysqll in the Azure Portal.
* Step 2: Created a database named companydb and set the administrator login as CompanyServers.
* Step 3: Configured firewall rules to allow my IP address and enabled public access.
* **Azure Database for MySQL**

A screenshot of a computer

AI-generated content may be incorrect.

* **Database Configuration page**

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

* **Firewall rules setup:**

A screenshot of a computer

AI-generated content may be incorrect.

**2. GitHub Actions Setup**

* Step 1: Created a GitHub repository and pushed all project files.
* Step 2: Added repository secrets for database connection.
* Step 3**:** Configured the GitHub Actions workflow (ci\_cd\_pipeline.yml) to:
* Set up Python
* Install dependencies
* Run SQL scripts for schema changes
* **main page**

A screenshot of a computer

AI-generated content may be incorrect.

* **GitHub Secrets setup:**

A screenshot of a computer

AI-generated content may be incorrect.

* **ci\_cd\_pipeline.yml**
* name: Database CI/CD Pipeline
* on:
* push:
* branches: [ main ]
* pull\_request:
* branches: [ main ]
* jobs:
* deploy-database:
* runs-on: ubuntu-latest
* steps:
* - uses: actions/checkout@v2
* - name: Set up Python
* uses: actions/setup-python@v2
* with:
* python-version: '3.x'
* - name: Install dependencies
* run: |
* python -m pip install --upgrade pip
* pip install -r requirements.txt
* - name: Execute SQL scripts
* env:
* DB\_HOST: ${{ secrets.DB\_HOST }}
* DB\_USER: ${{ secrets.DB\_USER }}
* DB\_PASSWORD: ${{ secrets.DB\_PASSWORD }}
* DB\_NAME: ${{ secrets.DB\_NAME }}
* run: python execute\_sql.py
* - name: Execute departments SQL script
* run: python execute\_departments\_sql.py

1. **Workflow Testing and Results**

* Step 1: Ran the workflow by pushing changes to the main branch.
* Step 2: Verified the workflow logs in the Actions tab:
* Successfully connected to the Azure MySQL database
* Executed SQL scripts for both projects and departments tables
* **Local testing:**

A screen shot of a computer program

AI-generated content may be incorrect.

* **Github Actions workflow**

A screenshot of a computer

AI-generated content may be incorrect.

* **Workflow file**

A screenshot of a computer

AI-generated content may be incorrect.

* **Execute SQL scripts**

A screenshot of a computer

AI-generated content may be incorrect.