

Experiment 10

Aim - Deploy full-stack apps using DevOps tools and Docker.

Code -

```
# server/Dockerfile
FROM node:18
WORKDIR /app
COPY package*.json ./
RUN npm install
COPY . .
EXPOSE 5000
CMD ["npm", "start"]
```

Fig 1.1 - Server side Dockerfile

```
version: '3'
services:
  client:
    build: ./client
    ports:
      - "3000:3000"
    depends_on:
      - server

  server:
    build: ./server
    ports:
      - "5000:5000"
    environment:
      - PORT=5000
    depends_on:
      - mongo

  mongo:
    image: mongo
    ports:
      - "27017:27017"
    volumes:
      - mongo-data:/data/db

volumes:
  mongo-data:
```

Fig 1.2 - DockerCompose file

```
git init
git add .
git commit -m "Initial full-stack Docker deployment"
git remote add origin https://github.com/your-username/your-repo.git
git push -u origin main
```

Fig 1.3 - Git commands to push code to github

The screenshot shows the Vercel deployment settings interface. The left sidebar contains navigation links: 'Nikhil's workspace', 'TravList', 'Deployments', 'Logs', 'Collaborators', 'Team', 'Account', 'Help', 'Feedback', 'Status', and 'Support'. The main content area is titled 'Settings' and is divided into two sections: 'General' and 'Build & Deploy'. In the 'General' section, the 'Name' is 'TravList', the 'Region' is 'Oregon (US West)', and the 'Instance Type' is 'Free' with '0.1 CPU' and '512 MB'. A message below the instance type says 'Please enter your payment information to select an instance type with higher limits.' In the 'Build & Deploy' section, the 'Repository' is 'https://github.com/NikhilSKale/Travel-Listing'.

Settings

General

Name
A unique name for your Web Service. [Edit](#)

Region
Your services in the same region can communicate over a private network.

Instance Type
Free 0.1 CPU 512 MB [Update](#)
Please enter your payment information to select an instance type with higher limits.

[See remaining free usage, or learn about free service limits.](#)

Build & Deploy

Repository
The repository used for your Web Service. [Edit](#)

Fig 2.1 - Configure Deployment Settings

Branch
The Git branch to build and deploy.
main
Edit

Git Credentials
User providing the credentials to pull the repository.
rickkale815@gmail.com (you)
Use My Credentials

Root Directory Optional
If set, Render runs commands from this directory instead of the repository root. Additionally, code changes outside of this directory do not trigger an auto-deploy. Most commonly used with a monorepo.
Edit

Build Filters
Include or ignore specific paths in your repo when determining whether to trigger an auto-deploy. Paths are relative to your repo's root directory. Learn more.
Edit

Included Paths
Changes that match these paths will trigger a new build.
Add Included Path

Ignored Paths
Changes that match these paths will not trigger a new build.
Add Ignored Path

Build Command
Render runs this command to build your app before each deploy.
\$ npm install
Edit

Pre-Deploy Command Optional
Render runs this command before the start command. Useful for database migrations and static asset uploads.
\$
Edit

Start Command
Render runs this command to start your app with each deploy.
\$ node app.js
Edit

Auto-Deploy
By default, Render automatically deploys your service whenever you update its code or configuration. Disable to handle deploys manually. Learn more.
OR
Edit

Deploy Hook
Your private URL to trigger a deploy for this server. Remember to keep this a secret.
Regenerate hook

Fig 2.2 - Configure Github(branch), set run command

```

Oct 15 10:54:05 PM ⓘ g7vkw ==> Running 'node app.js'
Oct 15 10:54:11 PM ⓘ g7vkw Server is listening on port 8080
Oct 15 10:54:13 PM ⓘ g7vkw Connection successful
Oct 15 11:34:04 PM ⓘ rhwq7 ==> Running 'node app.js'
Oct 15 11:34:09 PM ⓘ rhwq7 Server is listening on port 8080
Oct 15 11:34:11 PM ⓘ rhwq7 Connection successful

```

Fig 2.3 - Logs

Output -

The screenshot shows the Vercel dashboard for a project named 'TravList'. The sidebar on the left contains navigation links: 'board', 'vList', 'ents', 'tings', 'R', 'gs', 'trics', 'Environment', 'ell', 'aling', 'views', 'ks', 'ps', 'ngelog', 'e a friend', 'tact support', and 'der Status'. The top bar includes a search icon, the text 'Search', and buttons for '+ New', 'Upgrade', and a user profile icon. The main content area displays the 'TravList' service details, including the service ID 'srv-d2739363jplc73e2a8cg', the user 'NikhilSKale / Travel-Listing', and the URL 'https://travlist.onrender.com'. A warning banner states: 'Your free instance will spin down with inactivity, which can delay requests by 50 seconds or more. Upgrade now'. Below this, a 'Filter events' dropdown shows '31' events. The deployment history includes:

- Deploy live for bec8eb2: Add file upload and connect atlas** (August 2, 2025 at 9:29 PM)
- Deploy started for bec8eb2: Add file upload and connect atlas** (August 2, 2025 at 9:27 PM)
 - Manually triggered by you via Dashboard
 - Build cache cleared
- Deploy live for bec8eb2: Add file upload and connect atlas** (August 2, 2025 at 9:27 PM) with a 'Rollback' button.
- Deploy started for bec8eb2: Add file upload and connect atlas** (August 2, 2025 at 9:27 PM)

Fig 3.1 - Deployment Status

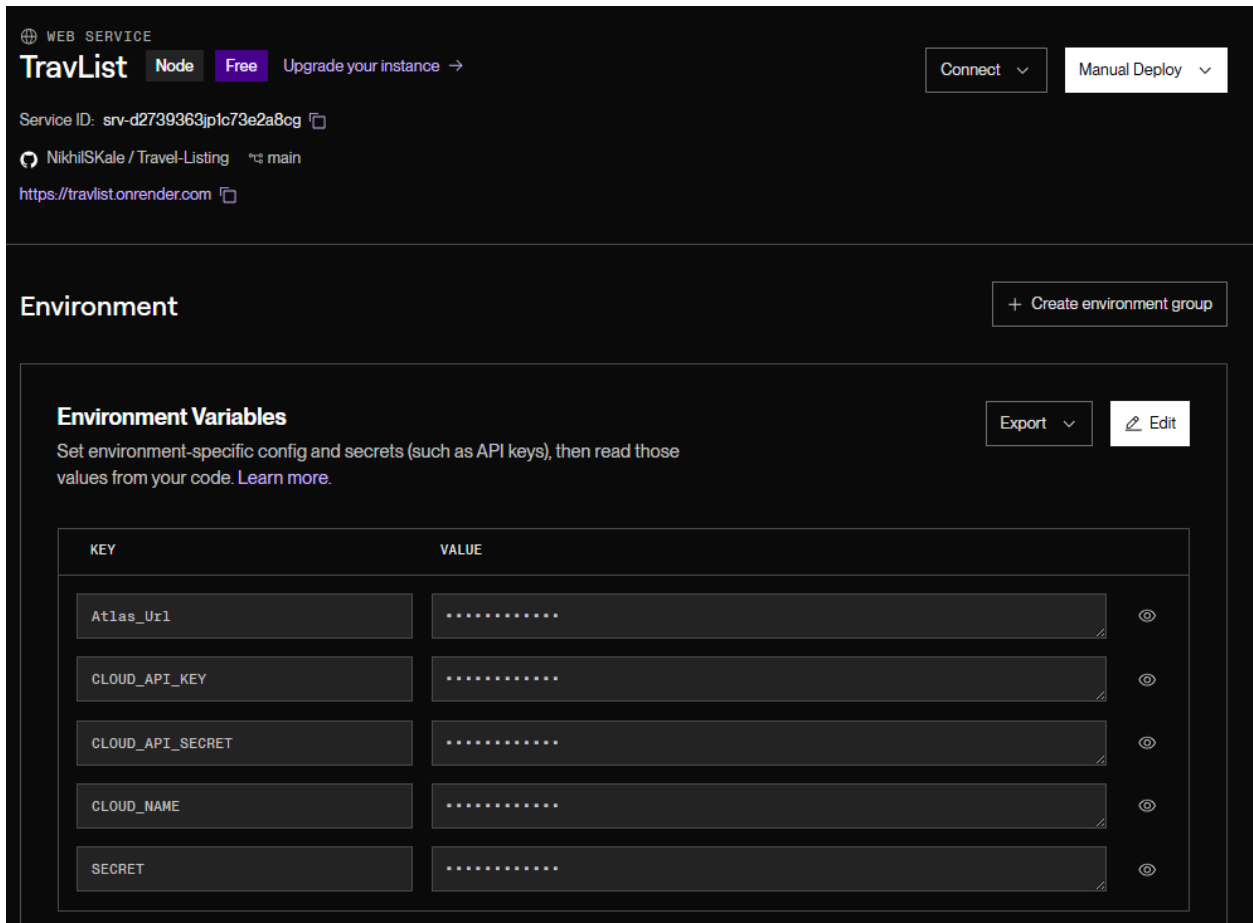


Fig 3.2 - Setup Environment variables


SERVICE NAME	1	STATUS	RUNTIME	REGION
 TravList		✓ Deployed	Node	Oregon

Fig 3.3 - Successful deployment

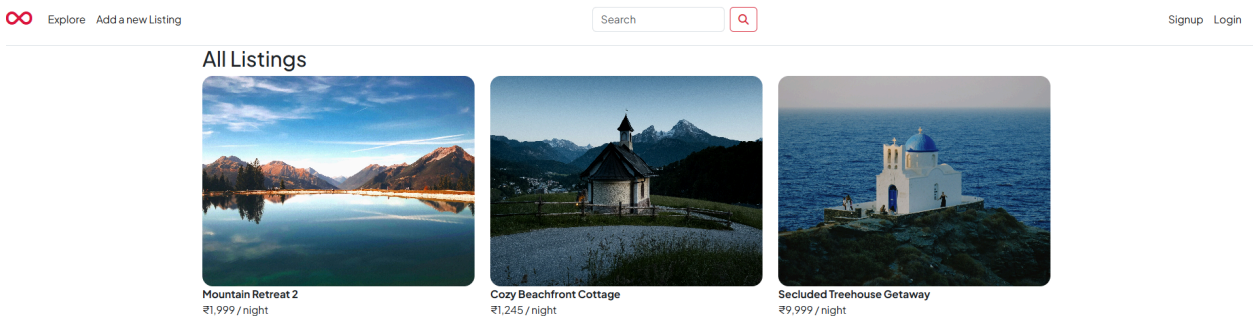


Fig 4.1 - Dashboard of Website