

# PROJECT MAP - Your Navigation Guide

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## START HERE!

YOU ARE HERE → START\_HERE.md (This gives you the big picture)

↓  
Choose Your Path:

↓                      ↓                      ↓  
Quick Demo      Learning      Experiment  
(30 min)      (6 weeks)      (Ongoing)

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## Documentation Files (Read in Order)

### 1 START\_HERE.md ★ **READ THIS FIRST**

- Project overview
- What you have
- What you'll learn
- Immediate next steps
- Success metrics

### 2 QUICKSTART.md

- Step-by-step setup (30 min)
- Test each service
- Docker commands
- Jenkins installation
- Verification checklist

### 3 ARCHITECTURE.md

- Visual diagrams
- System overview
- Data flow
- Service communication
- Design decisions

### 4 LEARNING\_ROADMAP.md

- 6-week structured plan
- Daily tasks
- Learning objectives
- Exercises















- Mastery checklist

## 5 README.md

- Technical reference
- API documentation
- Commands reference
- Troubleshooting
- Advanced topics

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## Code Structure

```
portfolio-microservices/
├──  START_HERE.md           ← Begin here!
├──  QUICKSTART.md           ← Setup guide
├──  ARCHITECTURE.md        ← Diagrams
├──  LEARNING_ROADMAP.md    ← 6-week plan
├──  README.md              ← Reference
├──  docker-compose.yml     ← Run all services
├──  docker-compose.dev.yml ← Development mode
├──  .gitignore
├──  frontend/              ← Next.js Service
│   ├── src/
│   │   ├── app/
│   │   │   ├── page.js      ← Main portfolio page
│   │   │   ├── layout.js    ← Root layout
│   │   │   └── globals.css   ← Styles
│   │   └── components/
│   │       └── ContactForm.js ← Contact form
│   ├──  Dockerfile              ← Frontend image
│   ├── next.config.js
│   └── package.json
├──  backend/               ← Express API Service
│   ├── src/
│   │   ├── index.js        ← Server entry
│   │   ├── routes/
│   │   │   └── contact.js   ← API routes
│   │   ├── controllers/
│   │   │   └── contactController.js ← Logic
│   │   └── data/
│   │       └── contacts.json ← Storage
│   ├──  Dockerfile              ← Backend image
│   └── package.json
├──  nginx/                 ← Reverse Proxy
│   ├── nginx.conf         ← Routing rules
│   └──  Dockerfile              ← Nginx image
```

```
└─ jenkins/           ← CI/CD Pipeline
   ├── Jenkinsfile     ← Pipeline definition
   └── scripts/
       ├── build-frontend.bat
       ├── build-backend.bat
       └── deploy.bat
```

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## Quick Access Guide

Want to...

**Understand the project?** → Read START\_HERE.md

**Get it running quickly?** → Follow QUICKSTART.md

**See how it works?** → Check ARCHITECTURE.md

**Learn systematically?** → Follow LEARNING\_ROADMAP.md

**Find specific commands?** → Check README.md

**Modify the frontend?** → Edit frontend/src/app/page.js

**Modify the API?** → Edit backend/src/controllers/contactController.js

**Change routing?** → Edit nginx/nginx.conf

**Modify CI/CD?** → Edit jenkins/Jenkinsfile

**Run everything?** → docker-compose up --build

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## Common Workflows

### Workflow 1: First Time Setup

1. Read START\_HERE.md
2. Follow QUICKSTART.md Step 1-4
3. Test the application
4. Celebrate! 🎉

### Workflow 2: Learning Mode

1. Read LEARNING\_ROADMAP.md
2. Follow Week 1 tasks
3. Complete exercises
4. Move to Week 2
5. Repeat until mastery

## Workflow 3: Development

1. Make code changes
2. Test locally (npm run dev)
3. Build Docker image
4. Test in container
5. Commit changes
6. Trigger Jenkins build
7. Verify deployment

## Workflow 4: Troubleshooting

1. Check error message
2. View container logs (docker logs)
3. Check README.md troubleshooting
4. Search Stack Overflow
5. Review ARCHITECTURE.md
6. Ask for help

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## File Importance Matrix

### Critical (Must Understand)

- ★★★★★ START\_HERE.md
- ★★★★★ docker-compose.yml
- ★★★★★ frontend/Dockerfile
- ★★★★★ backend/Dockerfile
- ★★★★★ jenkins/Jenkinsfile

### Important (Should Understand)

- ★★★★★ QUICKSTART.md
- ★★★★★ ARCHITECTURE.md
- ★★★★★ nginx/nginx.conf
- ★★★★★ frontend/src/app/page.js
- ★★★★★ backend/src/index.js

### Reference (Good to Know)

- ★★★★★ LEARNING\_ROADMAP.md
- ★★★★★ README.md
- ★★★★★ Jenkins scripts
- ★★★★★ Package.json files

## Learning Path by File

### Day 1: Understanding

Read:

- START\_HERE.md
- ARCHITECTURE.md
- QUICKSTART.md (Steps 1-2)

### Day 2: Backend

Study:

- backend/Dockerfile
- backend/src/index.js
- backend/src/controllers/contactController.js

Run:

- QUICKSTART.md Step 3

### Day 3: Frontend

Study:

- frontend/Dockerfile
- frontend/src/app/page.js
- frontend/src/components/ContactForm.js

Run:

- QUICKSTART.md Step 4

### Day 4: Docker Compose

Study:

- docker-compose.yml
- nginx/nginx.conf

Run:

- QUICKSTART.md Step 5

### Day 5: Jenkins

Study:

- jenkins/Jenkinsfile
- jenkins/scripts/

Run:  
- QUICKSTART.md Step 6-7

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## Where to Find Things

### Configuration

- Docker: [Dockerfile](#) in each service folder
- Compose: [docker-compose.yml](#) (root)
- Nginx: [nginx/nginx.conf](#)
- Next.js: [frontend/next.config.js](#)
- Jenkins: [jenkins/Jenkinsfile](#)

### Application Code

- Portfolio UI: [frontend/src/app/page.js](#)
- Contact Form: [frontend/src/components/ContactForm.js](#)
- API Server: [backend/src/index.js](#)
- API Logic: [backend/src/controllers/contactController.js](#)
- Routes: [backend/src/routes/contact.js](#)

### Data

- Contacts: [backend/src/data/contacts.json](#)

### Documentation

- Overview: [START\\_HERE.md](#)
- Setup: [QUICKSTART.md](#)
- Architecture: [ARCHITECTURE.md](#)
- Learning: [LEARNING\\_ROADMAP.md](#)
- Reference: [README.md](#)

### Scripts

- Build: [jenkins/scripts/build-\\*.bat](#)
- Deploy: [jenkins/scripts/deploy.bat](#)

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## Pro Navigation Tips

1. **Bookmark START\_HERE.md** - Your home base
  2. **Keep QUICKSTART.md open** - Reference during setup
  3. **Print ARCHITECTURE.md** - Visual reference
  4. **Follow LEARNING\_ROADMAP.md** - Structured learning
  5. **Search README.md** - Quick command lookup
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## Your First 30 Minutes

Minute 0-5: Read START\_HERE.md  
Minute 5-10: Skim ARCHITECTURE.md  
Minute 10-15: Open QUICKSTART.md  
Minute 15-20: Run backend locally  
Minute 20-25: Run frontend locally  
Minute 25-30: Test contact form

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## Completion Checklist

### Setup Phase

- ☐ Read START\_HERE.md
- ☐ Completed QUICKSTART.md
- ☐ All services running
- ☐ Contact form working

### Understanding Phase

- ☐ Read ARCHITECTURE.md
- ☐ Understand data flow
- ☐ Understand Docker setup
- ☐ Understand Jenkins pipeline

### Learning Phase

- ☐ Started LEARNING\_ROADMAP.md
- ☐ Completed Week 1
- ☐ Built custom features
- ☐ Deployed via Jenkins

### Mastery Phase

- ☐ Can explain architecture
- ☐ Can modify services
- ☐ Can debug issues
- ☐ Can teach others

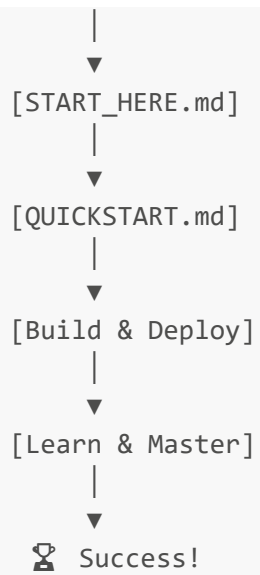
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## You're All Set!

**Current Location:** PROJECT\_MAP.md **Next Stop:** START\_HERE.md **Final Destination:** DevOps Mastery



Your DevOps Journey



**Ready? Open START\_HERE.md and begin! 🏆**