WEB APP DEVELOPMENT WITH REACTJS (INT252)

Lecture 23: Deployment & Production Build

Unit VI – Debugging, Testing & Deployment

Syllabus Mapping:

- Production build
- Deployment of React applications
- Hosting platforms

Target Learner: Beginner → Intermediate

What is Deployment?

Deployment means:

- Making your app live on the internet
- So real users can access it 🌍

Development vs Production

Development	Production
Fast reload	Optimized
Debug tools	Minified
Localhost	Live URL

What is a Production Build?

Production build:

- Optimized JS
- Minified code
- Faster loading

Created using build command

Build React App (Vite)

```
npm run build
```

This creates:

```
dist/
```

dist Folder Contains

- HTML
- CSS
- JavaScript bundles

Ready to deploy ✅

Before Deployment Checklist

✅ No console errors

✅ All tests passing

✅ Correct environment variables

Environment Variables

```
VITE_API_URL=https://api.example.com
```

Used for production APIs

Hosting Options

Popular platforms:

- Netlify

- Vercel

- GitHub Pages

Deploy on Netlify (Steps)

1. Push code to GitHub

2. Login to Netlify

3. Select repo

4. Build command: `npm run build`

5. Publish directory: `dist`

Deploy on Vercel (Steps)

1. Push to GitHub

2. Import project

3. Auto-detect Vite

4. Deploy 🚀

Routing Issue in Deployment

Problem:

- Page refresh gives 404

Solution:

- Redirect all routes to index.html

SPA Redirect Fix (Netlify)

Create file:

```
public/_redirects
```

```
/* /index.html 200
```

Performance Tips

- Code splitting

- Lazy loading

- Optimized images

Security Best Practices

- Do not expose secrets

- Use HTTPS

- Sanitize inputs

Practice Exercises

1. Create production build

2. Deploy app on Netlify

3. Test live URL

✅ Answers – Practice

1. `npm run build`

2. Use Netlify/Vercel

3. Open live URL

Key Takeaways

- Deployment makes app live

- Production build is optimized

- Hosting platforms simplify deployment

🎉 Course Completion

You have completed INT252 – Web App Development with ReactJS

You are now:

- React fundamentals ready
- Industry-aligned
- Project capable 🚀