DAY 7 – Hosting (Netlify Focus), Deployment Options, Final Mini Project & Complete React Bootcamp Summary

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1. What Is Hosting?

Simple Definition:

Hosting means **uploading your project to the internet** so anyone can open your website using a link.

Example:

```
https://your-react-app.netlify.app
```

Hosting is important because:

✓ Your project becomes live ✓ You can show it to others ✓ Required for portfolios ✓ Required for internships & placements ✓ Makes you feel like a real developer

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2. What Files Should Be Hosted in React?

When you run React in development, it's not optimized. So we must create a **production build**:

```
npm run build
```

This creates a folder:

```
build/
```

This folder contains:

- index.html
- CSS
- JS
- Assets and everything optimized for hosting.

You must upload the `build` folder to hosting platforms.

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3. Hosting React App on Netlify (Recommended for beginners)

Netlify is:

- Free
- Fast
- Easiest
- Auto deployment from GitHub
- Great for students

Below are the **full steps**:

Step 1: Build Your React App

Inside project folder:

```
npm run build
```

You will see:

```
build/
```

Step 2: Go to Netlify

Website:

```
https://www.netlify.com
```

Create account using:

- GitHub
- Google
- Email

Step 3: Deploy with "Drag and Drop" (Easier Method)

1. Go to Netlify dashboard
2. Click **Add New Site**
3. Choose **Deploy manually**
4. Drag and drop the **build folder**
5. Wait for upload
6. Netlify generates your website link automatically

Example:

```
https://myreactapp123.netlify.app
```

Step 4: Hosting Using GitHub (Professional Method)

1. Upload your React project to GitHub
2. In Netlify → Select **Add New Site**
3. Choose **Import from GitHub**
4. Select your repository
5. Netlify auto-detects:

```
build command: npm run build
publish directory: build
```

6. Click **Deploy Site**

Netlify automatically redeploys every time you push changes to GitHub.

5. Setting Custom Domain in Netlify (Optional Advanced)

Example custom domain:

```
www.muneesprojects.in
```

Steps:

1. Buy domain (Namecheap, GoDaddy, Hostinger)
2. Go to Netlify → Domain settings
3. Add your domain

4. Update DNS nameservers from domain provider
5. Wait 5–10 minutes

Site becomes live with your own domain.

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6. Environment Variables in Netlify (API Keys)

Go to:

```
Site Settings → Build & Deploy → Environment
```

Add keys like:

```
REACT_APP_API_KEY = xxxxx
```

React can use these during build.

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7. Other Hosting Options (Explain to Students)

1. **Vercel**

- Also free
- Best for Next.js
- Automatic GitHub deployment
- Easy build process

Why use it? ✓ Lightning fast ✓ Supports modern frameworks ✓ Simple UI

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2. **GitHub Pages**

- Free
- Supports static React apps
- Needs small config: Install:

```
npm install gh-pages --save-dev
```

Why use it? ✓ Simple ✓ Free forever ✓ Perfect for portfolios

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3. **Firebase Hosting**

- Very fast
- Good for apps with backend
- Requires Firebase login

Commands:

```
firebase init
firebase deploy
```

Used when your app uses Firebase DB, Auth etc.

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4. **Render**

- Free
- Can host fullstack (backend + frontend)
- Good alternative for Heroku

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5. **Surge**

- Very simple
- One command deployment

```
surge ./build yourname.surge.sh
```

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8. Final Mini Project (Implement on Day 7)

Suggested options:

- Weather App
- Movie Search App
- Notes App
- Calculator App
- Recipe Finder
- Simple Chat UI
- College Info App
- Small Ecommerce UI

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9. React Folder Structure (Best Practices)

```
src/
 ├─ components/
 │    ├─ Card.jsx
 │    ├─ Button.jsx
 │    └─ Navbar.jsx
 │
 ├─ pages/
 │    ├─ Home.jsx
 │    └─ About.jsx
 │
 ├─ assets/
 │    ├─ images/
 │    └─ icons/
 │
 ├─ hooks/
 ├─ services/   (API functions)
 ├─ App.jsx
 └─ index.js
```
