📌 Semester-wise Roadmap (Summary)

Year 1

- **Sem 1** → Programming basics (C++/Java/Python), intro DSA (arrays, strings, recursion), HTML/CSS/Git, mini portfolio site.

- **Sem 2 +** → DSA (Stacks, Queues, Linked List, Sorting), OOPS,DBMS

- **Summer :** Web dev (JS, DOM, React), mini to-do/notes app,portfolio,etc.

Year 2

- **Sem 3** → Advance DSA(graphs,trees,dp etc),OS +Networks, backend track(Node.js/ Django / Spring Boot), CRUD/E-commerce project.

- **Sem 4** → DSA Qs + contests, revise core subjects, **deployment/devops** via projects (social media clone,etc)->*here you can explore nextjs(frontend)*

  Summer : *Other tracks to Explore(Non/low coding) :Product Management ,Data analytics*

Year 3

- **Sem 5** → Start applying for internships, + LeetCode 150/Blind 75,dev with AI integration, projects (chat app, AI resume selector),Explore AI

- **Sem 6 + Summer** → DSA + core revision ,resume prep, **internship** in summer.

Year 4

- **Sem 7–8** → Placement prep (DSA revision + core revision), final year project/internship, explore specializations (Finance, DevOps, Blockchain, etc.).

For starting in year 2

📌 Semester-wise Roadmap (Summary)

Year 2

- **Sem 3** → Programming basics (C++/Java/Python), intro DSA (arrays, strings, recursion), HTML/CSS/Git, mini portfolio site,OOPS

- **Sem 4** → DSA (Stacks, Queues, Linked List, Sorting), Web dev (JS, DOM, React), mini to-do/notes app,portfolio,etc.

- **Summer :** *Other tracks to Explore(Non/low coding) :Product Management ,Data analytics+DBMS*

Year 3

- **Sem 5** → Advance DSA(graphs,trees,dp etc),OS +Networks,backend track(Node.js/ Django / Spring Boot), CRUD/E-commerce project.

- **Sem 6** → DSA Qs + contests, **deployment/devops** via projects (social media clone,etc)->*here you can explore nextjs(frontend),*Start applying for internships,

  Summer : DSA(Start applying for internships, + LeetCode 150/Blind 75) + core revision ,resume prep, **internship** in summer.

Year 4

- **Sem 7–8** → Placement prep (DSA revision + core revision), final year project/internship, explore specializations (AI/ML,Finance, DevOps, Blockchain, etc.).

📌 Semester-wise Roadmap (Starting from Year 3)

Year 3

- **Sem 5**

    - **Programming basics** → C++/Java/Python

    - **DSA fundamentals** → Arrays, Strings, Recursion, Stacks, Queues, Linked List, Sorting

    - **OOPS concepts**

    - **Web basics** → HTML, CSS, Git

    - **Mini Project** → Portfolio site / small app

- **Sem 6**

    - **Advanced DSA** → Trees, Graphs, Dynamic Programming

    - **Frontend development** → JavaScript, DOM, React, Next.js

    - **Deployment basics** → Deploy on Vercel/Netlify/Heroku

    - **Summer** → OS + DBMS + regular DSA questions & contests, basics of backend (Node.js/Django/Spring Boot)

Year 4

- **Sem 7–8**

    - **Placement prep** → Revise DSA (Blind 75 / Striver SDE Sheet), OS, DBMS, CN, OOPS

- **Backend development** → APIs, databases, authentication

- **Major project/internship** → Build a scalable full-stack project (E-commerce / Social app / SaaS idea)
- **Explore AI**