KIDS & TEENS FREELANCING TRAINING INSTITUTE

DevOps Course Outline

Module 1: What is DevOps?

- What does "DevOps" mean in simple words?
- Real-life examples: teamwork in a kitchen, delivering pizza, school project building
- Why DevOps is important in developing and running apps smoothly
- How developers and operations teams work together as one unit
- The main goals of DevOps: faster updates, fewer errors, better teamwork
- How DevOps helps software go from idea to working app
- Fun comparison: DevOps vs. traditional software building

Module 2: Code & Collaboration – Working as a Team

- What is coding and why teamwork matters in DevOps
- What is version control and how it keeps work organized
- Introduction to Git and GitHub for saving and sharing code
- Simple example: sharing a group drawing and keeping all versions
- How developers track changes using commits
- Working together on code like building blocks
- Drawing activity: show how one change travels through the team

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Module 3: Automation – Making Tasks Easier

- What is automation? Explained with daily life examples like alarms
- Why DevOps uses automation to speed things up
- Introduction to CI/CD: Continuous Integration and Delivery
- What happens when code is tested and sent out automatically
- Fun example: making a sandwich assembly line
- How tools like GitHub Actions and Jenkins help developers
- Benefits of automation: less work, fewer mistakes

Module 4: Meet the Cloud – Where Apps Live

- What is the cloud and where do apps live online?
- Why developers don't keep everything just on one computer
- How websites stay live 24/7 using cloud servers
- Real-life example: watching a movie online vs. from a DVD
- What is deployment? Sending apps to the world
- Activity: draw your app's "home" in the cloud
- Why the cloud helps apps work faster and safer

Module 5: Monitoring & Fixing – Keeping Things Running

- What does it mean to monitor an app's health?
- Real-life example: how a doctor checks your pulse
- What are bugs and how do we fix them in DevOps?
- Simple explanation of logs and alerts
- Why fixing problems quickly is super important
- Fun activity: play the role of an app doctor
- How monitoring helps apps work without stopping

Module 6: Real-World DevOps Examples for Kids

- How your favorite games update without bugs
- Why YouTube rarely crashes — thanks to DevOps
- How music and streaming apps stay smooth and fast
- Examples of teamwork in building popular apps
- How DevOps helps keep websites safe and secure
- School project teamwork vs. DevOps teamwork
- Everyday things you use that are built with DevOps

Module 7: Build a Mini DevOps Project

- Create a small website using GitHub Pages
- Add your own text or images to the site
- Make and track changes using commits
- Simulate a small bug and fix it with help
- Share your live website with family or friends
- Final activity: present your project to others
- Celebrate your DevOps learning journey

Module 8: The Future of DevOps & Careers

- What makes DevOps an exciting part of tech
- How DevOps helps people work smarter, not harder
- Jobs in the future: cloud engineer, release manager, DevOps pro
- What skills kids can start learning now
- Fun drawing: your dream app + how DevOps helps it
- How DevOps is used around the world today
- DevOps makes the tech world better, faster, and fun

Bonus Materials:

- Interactive quizzes and mini games
- Kid-safe tools like GitHub Classroom, CodeSandbox
- Printable DevOps terms and meanings sheet
- Small group project ideas for practice
- Official Certificate of Completion