Localhost vs AWS

- **Localhost** refers to **your own computer**. It's used for **developing and testing** applications locally. The URL http://localhost or 127.0.0.1 points to your **own machine**, and only you can access it — it's not on the internet.
- **AWS (Amazon Web Services)** is a **cloud computing platform** that provides **servers, storage, databases**, and many other services over the internet. It's used to **host live (production) applications** that need to be accessible publicly or by teams.

Why AWS is not used for localhost

- AWS is designed for **remote, internet-based infrastructure**, not for local environments.
- When you run something on localhost, you're **not using AWS resources** — you're just using your **own computer's** CPU, memory, and storage.

Example

- **Localhost**: You're building a React app and running it using npm start — you access it at http://localhost:3000.
- **AWS**: You deploy that app on **AWS EC2 or S3**, so others can access it at something like https://myapp.amazonaws.com.

Understanding Localhost vs AWS

1. What is Localhost?

Localhost refers to your **personal computer environment** used for **local development and testing**. It uses the **loopback network interface**, which means the computer talks to itself over the network.

- **IP Address**: 127.0.0.1 or the hostname localhost
- **Scope**: Accessible **only on your machine**
- **Use Case**: Ideal for development, debugging, and testing before deployment

Example:

Running a React app with npm start is served at http://localhost:3000 and is only accessible by you.

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2. What are AWS?

Amazon Web Services (AWS) is a **cloud platform** that provides on-demand computing resources over the internet. It includes services like:

- **EC2**: Virtual servers
- **S3**: Object storage
- **RDS**: Managed databases
- **Lambda**: Serverless functions
- **Scope**: Accessible **globally over the internet**
- **Use Case**: Ideal for hosting production applications, APIs, storage, and scalable infrastructure

Example:

Deploying a Node.js app on an EC2 instance and accessing it via http://ec2-3-95-100-23.compute-1.amazonaws.com

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3. Key Differences

Feature	Localhost	AWS Cloud
Environment	Personal computer	Cloud server (hosted by AWS)
Accessibility	Only on your machine	Public (if configured)
Use Case	Development and testing	Production and global availability
Resources	Uses local CPU/RAM	Uses AWS cloud infrastructure
Cost	Free (uses your own hardware)	Pay-as-you-go pricing model

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4. Why AWS is Not Used for Localhost

- **Localhost** is purely local — it doesn't involve any cloud or remote infrastructure.
- **AWS** is used when you need your application or service to be **available to others over the internet** or in a **distributed production environment**.
- You develop on localhost and **deploy to AWS** when you're ready for broader access or scalability.

References

- AWS Official Site
- What is localhost? – MDN Docs
- Deploy a Web App on AWS – AWS Docs