**Amazon EC2 Quick Notes for Beginners**

**🚀 What is EC2?**

* **Amazon EC2 (Elastic Compute Cloud)**: Virtual servers in the cloud to run your applications.

**🌟 Key Features**

* **Scalable**: Adjust server capacity as needed.
* **Flexible**: Choose instance types based on your needs.
* **Pay-as-you-go**: Pay only for what you use.

**🛠️ Basic Concepts**

* **Instance**: A virtual server.
* **AMI**: Template with OS and software.
* **Instance Types**:
  + t3.micro - Small, general-purpose.
  + c5.large - For compute-heavy tasks.
  + r5.large - For memory-intensive tasks.

**💰 Pricing Models**

* **On-Demand**: Pay by the hour/second. No commitment.
* **Reserved**: Save money with a 1-3 year commitment.
* **Spot**: Bid on unused capacity at lower prices.

Learn EC2 Pricing Models: <https://youtu.be/_d42iIc-P5I?si=iryRTLHu10dwFOUM>

**📝 Getting Started**

1. **Choose an AMI**: Select OS/software.
2. **Pick an Instance Type**: Size your server.
3. **Set Security Groups**: Control access.
4. **Launch**: Start and connect to your instance.

**🔑 Important Concepts**

* **Elastic IP**: Static IP address.
* **Security Groups**: Firewall rules for your instance.
* **EBS**: Persistent storage.

**📌 Tips**

* **Start Small**: Use a free tier t3.micro to learn.
* **Backup**: Take snapshots of your data.
* **Monitor**: Use CloudWatch for performance and cost tracking.

**📚 Resources**

* [**AWS Free Tier**](https://aws.amazon.com/free/): 750 hours/month on t3.micro.
* [**AWS Documentation**](https://docs.aws.amazon.com/ec2/): Learn more.