**Steps for AWS CloudWatch**

**1. Log in to the AWS Management Console**

* Go to the [AWS Management Console](https://aws.amazon.com/console/).
* Log in with your credentials.

**2. Launch an EC2 Instance (if you don’t have one)**

1. Go to the **EC2** service.
2. Click **Launch Instance**.
3. Choose an Amazon Machine Image (AMI) (e.g., Amazon Linux 2).
4. Select an instance type (e.g., t2.micro).
5. Configure instance details (leave defaults if unsure).
6. Add storage (default is usually sufficient).
7. Add tags (optional).
8. Configure security groups to allow SSH (port 22) and HTTP (port 80) traffic.
9. Launch the instance and download the key pair.

**3. Enable CloudWatch Monitoring for the EC2 Instance**

1. Go to the **EC2 Dashboard**.
2. Select your instance.
3. Click **Actions** > **Monitor and troubleshoot** > **Manage CloudWatch monitoring**.
4. Enable **Detailed Monitoring** (optional but recommended for more granular metrics).
5. Click **Save**.

**4. Create a CloudWatch Dashboard**

1. Go to the **CloudWatch** service.
2. In the left sidebar, click **Dashboards**.
3. Click **Create dashboard**.
4. Enter a dashboard name (e.g., Codtech-Monitoring-Dashboard).
5. Click **Create dashboard**.
6. Add widgets to the dashboard:
   * Click **Add widget**.
   * Choose a widget type (e.g., Line, Stacked Area, Number).
   * Select the metric you want to monitor (e.g., CPUUtilization, NetworkIn, NetworkOut).
   * Configure the widget and click **Create widget**.
7. Repeat to add more widgets for other metrics (e.g., Memory Usage, Disk I/O).

**5. Create CloudWatch Alarms**

1. In the CloudWatch console, go to **Alarms** in the left sidebar.
2. Click **Create alarm**.
3. Click **Select metric**.
4. Choose a metric (e.g., EC2 > Per-Instance Metrics > CPUUtilization).
5. Set the conditions for the alarm:
   * Threshold type: Static.
   * Define the threshold (e.g., CPUUtilization > 80%).
   * Set the alarm to trigger when the threshold is breached for 1 consecutive period.
6. Configure actions:
   * Send a notification to an SNS topic (create an SNS topic if you don’t have one).
   * Add an email address to the SNS topic to receive notifications.
7. Enter an alarm name (e.g., High-CPU-Utilization-Alarm).
8. Click **Create alarm**.

**6. Verify Alarms and Dashboard**

1. Go to the **CloudWatch Dashboard** to view the metrics in real-time.
2. Simulate high CPU usage on your EC2 instance (e.g., run a stress test).
3. Check if the alarm triggers and you receive an email notification.

**Deliverables**

1. A CloudWatch dashboard showcasing metrics (e.g., CPU, Memory, Network).
2. Configured CloudWatch alarms (e.g., for high CPU usage).
3. Screenshots or documentation of the dashboard and alarms.

Screen shots

Launch instances   
A screenshot of a computer

Description automatically generated

Enabled Detailed Monitoring

A screenshot of a computer

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Created Cloud watch Dashboard

A screenshot of a computer

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Created an alarm

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Deleted alarm

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Deleted instance  
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