

# Overview

## What is Sandbox Studio?

**Sandbox Studio** is a web-based solution that helps cloud administrators manage **temporary AWS sandbox environments**. It automates the enforcement of **security policies, governance rules, budget controls**, and **account recycling settings** — all through an easy-to-use web interface.

The solution allows organisations to give teams a safe space to **experiment, learn**, and **prototype** with AWS services in **production-isolated AWS accounts** that are cleaned and recycled after use.

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## Key Capabilities

Sandbox Studio automatically configures a **sandbox Organizational Unit (OU)** in AWS Organizations. This OU is preloaded with AWS best practices for **workload isolation** and **governance**. When deployed, it applies a standard set of **policies, guardrails**, and **controls** to all sandbox accounts.

The platform provides:

- **Automated cost controls**
    - Sends alerts when spending approaches budget limits.
    - Can trigger automated actions (e.g., resource shutdowns) when limits are reached.
  - **Account recycling**
    - Allows accounts to be used for a **fixed duration** or until a **spend threshold** is met.
    - Cleans and resets accounts at the end of the sandbox period.
  - **Security restrictions**
    - Limits access to expensive or sensitive AWS actions within sandbox accounts.
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## Common Use Cases

Sandbox Studio supports a wide range of scenarios where teams need safe, temporary AWS environments. These environments can be pre-configured, budget-limited, and automatically cleaned up — making them ideal for experimentation, learning, and short-term projects. Below are some of the most common ways organisations use Sandbox Studio.

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## Development and Innovation Experiments

### **Typical users: Developers, product engineers**

Create small-scale, temporary AWS setups to try out new services or features before committing to a production build. Teams can quickly explore possibilities, validate technical approaches, and demonstrate value without the overhead of a full deployment pipeline.

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## Train and Test GenAI Models

### **Typical users: Machine learning engineers, data scientists**

Work with pre-configured environments to train and fine-tune generative AI models. Sandbox Studio makes it easy to run experiments with different training datasets, apply reinforcement learning techniques, and monitor outcomes in a safe, isolated space.

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## Test Environments

### **Typical users: QA/test engineers**

Spin up a clean, disposable environment for thorough application testing. These sandboxes are ideal for verifying integrations, reproducing defects, running regression suites, and testing API updates — all without risking production stability.

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## Higher Education Training Labs

### **Typical users: Professors, lecturers, academic department heads**

Set up classroom-ready AWS accounts for students to explore cloud computing hands-on. Instructors can control spending, reset environments between sessions, and ensure each student gets a fresh workspace for assignments or exams.

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## Research and Development (R&D)

### **Typical users: University researchers, enterprise R&D teams**

Provide a controlled cloud platform for research teams to run experiments and gather data. These sandboxes make it possible to test hypotheses, simulate real-world conditions, and analyse results without long-term infrastructure commitments.

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## Employee Onboarding and Training

### **Typical users: Training leads, HR onboarding teams**

Launch short-lived AWS environments to give new hires or existing staff practical experience with tools, workflows, or new technologies. Ideal for structured training sessions, internal workshops, or skills refreshers.

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## Hackathons

### **Typical users: Enterprise IT teams**

Run organisation-hosted hackathons in AWS accounts you own and control. This enables participants to work on real challenges while keeping sensitive or proprietary data inside your security boundaries.

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## Demo Environments

### **Typical users: Engineers, solution architects**

Set up temporary environments to showcase applications or solutions. These can be pre-loaded with sample data and configurations to deliver smooth, predictable demos to clients or stakeholders.

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## Software Vendor Trials

### **Typical users: Software vendors, sales engineers**

Offer time-limited or budget-restricted AWS environments so customers can test your software. This ensures a consistent experience for every trial while keeping operational costs under control.

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## Who Should Use This Guide

This installation guide is designed for:

- **Solution architects**
- **DevOps engineers**
- **AWS account administrators**
- **Cloud operations teams**

It provides:

- An **architecture overview**
  - **Planning considerations** before deployment
  - **Step-by-step configuration instructions** for launching Sandbox Studio in your AWS environment
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