

API Management Platform Hands-On Lab - Part 1

You will have been assigned a particular service to work on for the following exercises, throughout this document it will be referred to as **your API**.

The following exercises are designed to provide a basic understanding of how the API Management Platform works at IPIM-IP, the end of this lab links your new API Policy to the mock server hosted by Apiary, in order to do this please ensure you have a set of working endpoints from the [Apiary lab](#).

If you encounter any issues during the following exercises please ask one of the on-site support team for help.

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Setup

After logging in to your provided virtual machine you should see your service downloaded to the machine along with the Oracle API Management Platform Cloud application which is an Internet Application bookmarked in your Internet Browser.

If the application is not bookmarked then it can be accessed at the below URL:

- [API Management Platform](#)

Required Tools

For the following exercises, the following tools are required:

- Internet Browser (Google Chrome)

Useful URLs

- [API Gateway Lab - Part 1 \(This Document\)](#)
- [API Management Platform](#)
- [Apiary](#)
- [Microservices workbench](#)

Apiary Services:

- [Bedroom Service](#)
- [Kitchen Service](#)
- [Living Room Service](#)
- [Storage Service](#)
- [Office Space Service](#)

Section 1 - Introduction to API Management Platform

You should have received an invitation to create an account within the API management application, please follow the instructions in that email to finish creating your account.

Exercise 1: API Management Platform

This exercise is designed to familiarise yourself with the API Management Platform - As further exercises require you to edit the API for your service, please use the below API, Plan and Application for this exercise:

- [IKEA Polls Example API](#)

- [IKEA Polls Example Plan](#)
- [IKEA Polls Example Application](#)

Exercise 1 - Required Tools

- Internet Browser

Exercise 1 - Task

This exercise comprises of three areas to explore:

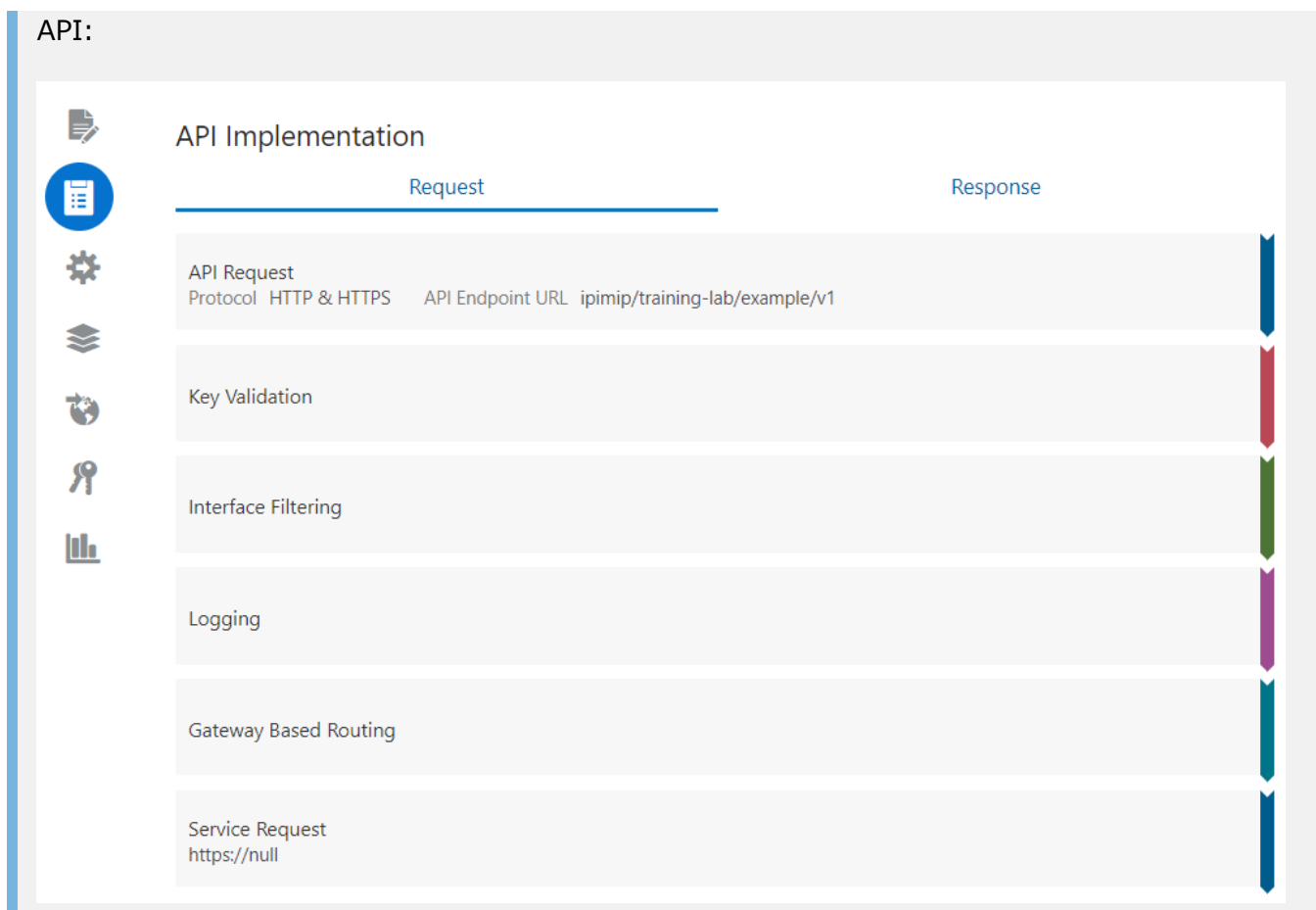
- API
- Plan
- Application

API

Within the API Management Platform, select the **APIs** tab and navigate to the **IKEA Polls Example API** and inspect the various policies applied on the **API Implementation** tab.

Also look at the **Grants** tab for the example API.

API:



The screenshot displays the 'API Implementation' tab for the 'IKEA Polls Example API'. The interface is divided into two main sections: 'Request' and 'Response'. The 'Request' section is currently active, showing a list of policies applied to the API. The policies are listed in a table-like structure with a vertical bar on the right side of each row, indicating that they can be reordered. The policies shown are:

- API Request: Protocol HTTP & HTTPS, API Endpoint URL ipimip/training-lab/example/v1
- Key Validation
- Interface Filtering
- Logging
- Gateway Based Routing
- Service Request: https://null

Plan

Within the API Management Platform, select the **Plans** tab and navigate to the **IKEA Polls Example Plan** and inspect the **Settings** and **Entitlements** tabs.

Be sure to drill into the APIs on the **Entitlements** tab.

Plan:

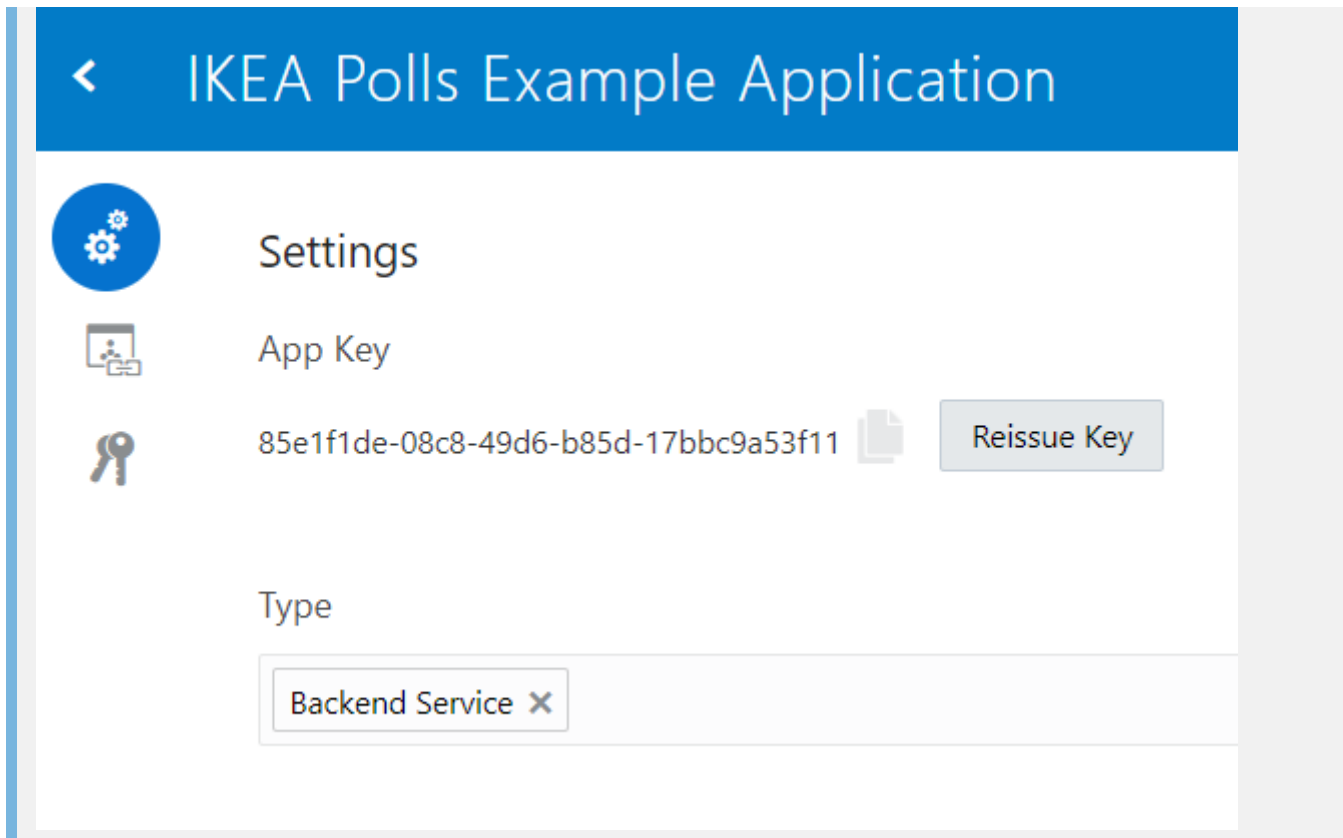
The screenshot displays the 'Settings' page for the 'IKEA Polls Example Plan | 1.0'. The page has a blue header with a back arrow and a plan icon. On the left, there is a sidebar with icons for Settings, Plan Rate Limit, Gateways, and a key icon. The main content area shows the 'Settings' section with a gear icon. Below it, the 'Plan Rate Limit' section shows two options: 'Unlimited' (selected) and 'Limited'. The 'Unlimited' option is described as 'Unlimited number of requests are allowed for this plan.' The 'Gateways' section shows two options: 'All' (selected) and 'Specific'. The 'All' option is described as 'This plan can invoke APIs through all gateways to which the API is deployed.'

Application

Within the API Management Platform, select the **Applications** tab and navigate to the **IKEA Polls Example Application** and inspect the **Settings** and **Subscriptions** tabs.

Be sure to pay attention to the **App Key** on the **Settings** tab.

Application:



Exercise 1 - Success Criteria

- ☐ Explore the [IKEA Polls Example API](#)
- ☐ Explore the [IKEA Polls Example Plan](#)
- ☐ Explore the [IKEA Polls Example Application](#)

Section 2 - Creating API Policies

Useful links for this exercise:

- [API Request Policy](#)
- [Key Validation Policy](#)
- [Interface Filtering Policy](#)
- [Logging Policy](#)
- [Gateway Based Routing Policy](#)

Exercise 2: Creating a Policy

For this exercise you will need to switch to the [APIs](#) tab on the left.

This exercise will introduce you to the different policies you can apply to a particular API

Note: Please use your particular API for this and subsequent exercises:

- IPIM-IP Training Bedroom Labs API
- IPIM-IP Training Kitchen Labs API
- IPIM-IP Training Living Room Labs API
- IPIM-IP Training Office Space Labs API
- IPIM-IP Training Storage Labs API

Exercise 2 - Required Tools

- Internet Browser

Exercise 2 - Task

Currently your API only includes the Service Request policy, your task is to add/update the following policies to the API:

- API Request
- Key Validation
- Interface Filtering
- Logging
- Gateway Based Routing

Exercise 2 - Success Criteria

- ☐ Update **API Request** policy
- ☐ Add **Key Validation** policy
- ☐ Add **Interface Filtering** policy
- ☐ Add **Logging** policy
- ☐ Add **Gateway Based Routing** policy

Section 3 - Creating a plan

For this exercise you will need to switch to the **Plans** tab on the left.

Useful links for this exercise:

- [Creating a Plan](#)

Exercise 3: Creating a plan

Now that you have created an API, you need to create a **Plan**, a plan is created so that a group of users can be entitled to call one or multiple APIs associated with the corresponding Plan.

Other benefits often associated with a plan are:

- Access Control - Different levels of access
- Corporate - Different bundles of APIs
- Monetization - Different levels of cost

Exercise 3 - Required Tools

- Internet Browser

Exercise 3 - Task

You need to create a new **Plan** and add an **Entitlement** for the new **API** you created in the previous exercise.

Exercise 3 - Success Criteria

- ☐ Create a new **Plan**
- ☐ Add a new **Entitlement** for the **API** from the previous exercise

Section 4 - Creating an Application

For this exercise you will need to switch to the **Applications** tab on the left.

Useful links for this exercise:

- [Creating an Application](#)

Exercise 4: Creating an Application

Now that you have created an API, you need to create an Application for a particular consumer, this is done so that each specific consumer has their own relevant application and also the metrics can be tracked per application thus giving greater insight into the API statistics.

Exercise 4 - Required Tools

- Internet Browser

Exercise 4 - Task

You need to create a new **Application** and subscribe the newly created application to the **Plan** you created during the previous exercise.

Exercise 4 - Success Criteria

- ☐ Create a new **Application**
- ☐ Subscribe the new **Application** to the **Plan** from the previous exercise

Section 5 - Deploying an API

For this exercise you will need to switch to the **APIs** tab on the left.

Useful links for this exercise:

- [Deploying an API](#)

Exercise 5: Deploying an API

Now that you have created your **API**, **Plan** and **Application**, it is time to deploy your **API**, deploying the **API** means that it is available for people to consume.

Exercise 5 - Required Tools

- Internet Browser

Exercise 5 - Task

For this exercise, you need to deploy your **API** to the development environment.

Within the API Management Platform, the development environment is called **PTE**.

Exercise 5 - Success Criteria

- ☐ Deploy **API** to PTE

Section 6 - Developer Portal

For this exercise you will be using the **APIs** and **Plans** tabs on the left.

Useful links for this exercise:

- [Publishing APIs](#)
- [Publishing Plans](#)

Exercise 6: Developer Portal

Now that you have created your **API**, **Plan**, **Application** and deployed the **API**, it is time to expose your **API** to the developers consuming from you, this is achieved by publishing the **API** and **Plan** to the **Developer Portal**.

Exercise 6 - Required Tools

- Internet Browser

Exercise 6 - Task

For this exercise, you need to publish your **API** and **Plan** to the developer portal.

Exercise 6 - Success Criteria

- ☐ Publish **API** to the developer portal
- ☐ Publish **Plan** to the developer portal