

## Backend Essentials

Certification Exam Study Guide



# About this Document

*This document provides references to help the trainees get prepared for the certification exam.*

## *Version History*

Version	Date	Description	Author
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## Introduction

The purpose of this document is to provide you with a Study Guide for your Certification Exam. This Study Guide contains all the references to the topics covered in the classroom training.

The first part of the Backend Certification Exam will be about Java and Web Basics to check your development skills.

The second part of the Backend Certification Exam will be about Backbase product knowledge.

You will be responsible for the following versions of Backbase products:

- CXS 6.1.5.1
- DBS 2.16.4.2
- IPS 1.11.4.1
- Service SDK: 8.5.0

## First Part - Java Basics

There will be 16 questions of 72 in the first part.

You should have basic Java knowledge before getting this test. Topics that are covered in the Certification Exam are:

- Java:
  - OOP: <https://docs.oracle.com/javase/tutorial/java/concepts/>
  - Exceptions: <https://docs.oracle.com/javase/tutorial/essential/exceptions/>
  - Basic I/O: <https://docs.oracle.com/javase/tutorial/essential/io/index.html>
  - Concurrency: <https://docs.oracle.com/javase/tutorial/essential/concurrency/index.html>
  - Collections: <https://docs.oracle.com/javase/8/docs/technotes/guides/collections/overview.html>
  - Nested Classes: <https://docs.oracle.com/javase/tutorial/java/javaOO/nested.html>
  - Generics: <https://docs.oracle.com/javase/tutorial/java/generics/index.html>
  - Design Patterns
- Web Basics
  - Servlets
- Database
  - SQL Basics
- Web Services
  - RESTful Web Services
- JWT: <https://jwt.io/introduction/>
- Spring Security: <https://spring.io/guides/topicals/spring-security-architecture>

## Second Part - Backbase CXS

There will be 56 questions of 72 on Backbase Essentials in the second part.

### Module 1 - Backbase Introduction

The primary focus of this module comprises the following sections:

- [Platform Architecture](#)
  - IPS Properties:  
[https://community.backbase.com/documentation/platform-services/1.11.4/platform\\_name\\_v1921](https://community.backbase.com/documentation/platform-services/1.11.4/platform_name_v1921)
  - Platform Support:  
[https://community.backbase.com/documentation/platform-services/1-11-4/platform\\_support/](https://community.backbase.com/documentation/platform-services/1-11-4/platform_support/)
- [Security Overview](#)
  - JWT in Backbase:  
[https://community.backbase.com/documentation/platform-services/1-11-4/understand\\_jwt\\_claims](https://community.backbase.com/documentation/platform-services/1-11-4/understand_jwt_claims)
- [Out of the box Services](#)
  - Groups in Backbase Security:  
[https://community.backbase.com/documentation/cxs/6-1-5/how\\_to\\_use\\_the\\_rest\\_api\\_to\\_add\\_user\\_groups](https://community.backbase.com/documentation/cxs/6-1-5/how_to_use_the_rest_api_to_add_user_groups)
- [Out of the box Capabilities](#)
- [CXS Basics](#)

### Module 2 - Service SDK

This module covers how to construct stand-alone, production-grade Spring Boot based microservices that you integrate into Backbase with Service SDK. These are the sections of this module:

- Understand [Service SDK](#)
- Service SDK archetypes
- [Service SDK libraries](#)

### Module 3 - Direct Integration

This module is about Direct Integration Services that is used for delegating functionality to existing core banking systems. Following sections are covered in this module:

- Purpose of Direct Integration Services
- When to use it
- Infrastructure
- [Implement a direct integration service](#)

## Module 4 - Inter Service Communication

- [Inter-Service Communication Architecture](#)
- Separating API's
  - [Client API](#)
  - [Service API](#)
- HTTP Service-API Request Authentication Flow

## Module 5 - Security

This module covers advanced security concepts.

- Default Auth Service
- [Spring Security within Backbase](#)
- [JWT within Backbase](#)
- Archetype to create Custom Auth Service
- Token Conversion
- Custom JWT Mappers
- [How to Use the REST API to Add User Groups](#)
- [Implement an LDAP authentication service](#)

## Module 6 - DBS Architecture

This module covers [DBS Architecture](#) in detail.

- When to use DBS
- What DBS brings
- [DBS Architecture](#)

## Module 7 - Entitlements

[This module covers Entitlements.](#)

- What is [Entitlements](#)
- Why we need Entitlements
- Entitlements in Business Banking, Retail Banking and Wealth Management
- [Access Control concepts](#)
  - Legal Entity vs User
  - Products vs Arrangements
  - Product Group
  - Job Profile
  - Service Agreement
  - Permission
  - Context
- [Integrate Access Control into a custom capability](#)

- Limits & Approvals

## Module 7 - Data Ingestion and Extensions

This module covers how data ingestions happen and how we use behavior and data model extensions.

- [Data Ingestion within DBS](#)
- [Behavior Extension](#)
- [Data Model Extension](#)

### Setting up your environment

This [guide](#) will help you setup your development environment.

For more information: <https://community.backbase.com/>