

# OptaWeb Employee Rostering User Guide

The OptaPlanner Team

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# Chapter 1. OptaWeb Employee Rostering

## Introduction

### 1.1. What is OptaWeb Employee Rostering?

Every organization faces planning problems: providing products or services with a limited set of *constrained* resources (employees, assets, time and money). One such planning problem is employee shift rostering: assigning shifts to employees. OptaWeb is a web application and REST service that solves employee shift rostering problems using the [OptaPlanner engine](#).

### 1.2. System Properties

These system properties can overwrite default properties of the application, for example, by passing `-Doptaweb.generator.zoneId="America/New_York"` to Spring Boot. These system properties might also be exposed as OpenShift template parameters.

- **optaweb.generator.timeZoneId:** The time zone ID for the automatically generated tenants. For example `America/New_York`. This defaults to the system default Zone ID.
- **optaweb.generator.initial.data:** What data to initially put in the database. Supported values are: `EMPTY` (no data) and `DEMO_DATA` (several tenants of various sizes). This defaults to `DEMO_DATA`

The OpenShift docker image also supports these parameters:

- **org.optaweb.employee rostering.persistence.datasource**
- **org.optaweb.employee rostering.persistence.dialect**
- **org.optaweb.employee rostering.persistence.hbm2ddl.auto**
- **org.optaweb.employee rostering.persistence.id.generator**

# Chapter 2. Architecture

## OptaWeb Employee Rostering Architecture

Use the powerful REST interface or the user friendly web interface.



# OptaWeb Employee Rostering class diagram



# Solving with OptaPlanner

OptaPlanner automatically assigns the shifts, according to our constraints.

