

Baladiya Platform Technical Overview

Prepared By
Hossam Redwan
Baladiya Platform Engineer

Table of Contents

Introduction.....	3
Definition.....	3
Development Philosophy	3
Baladiya Platform Architecture.....	4
Overview.....	4
UI Applications.....	5
Web Applications Template.....	6
Web Template Rules.....	6
Services.....	7
pengine (workflow Engine).....	7
pprint Print Service	8
pforms Forms Service.....	8

Introduction

This document target to describe technical overview of Baladyia Platform , a home made platform for developing eService and web applications.

Definition

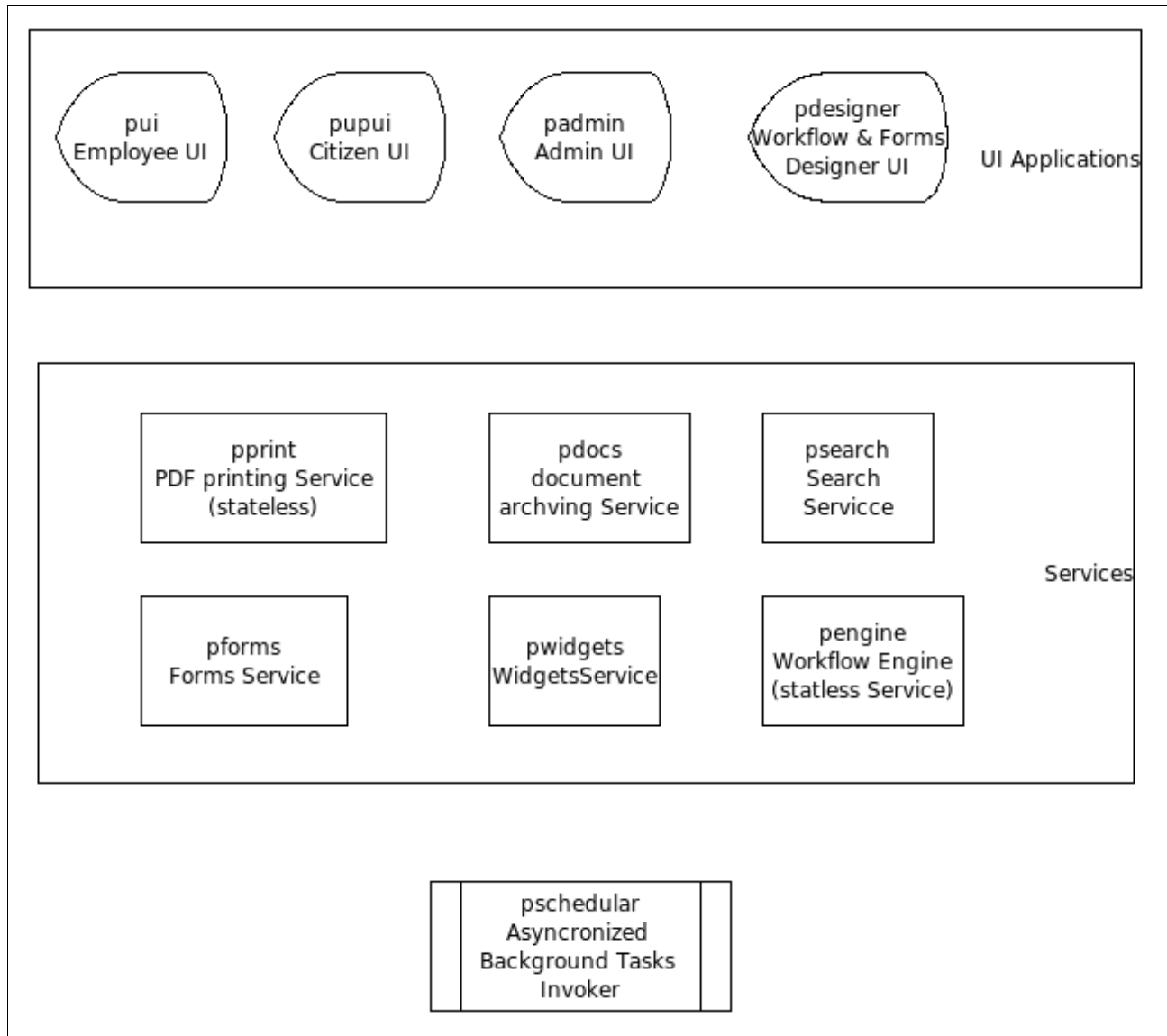
The Baladiya Platform is a collection of Technical Solutions that aim to simplify eServices Development process

- This platform is 100% Made in Qatar
- The platform and the eServices were developed by Qataries , Arabs and Indians Developers
- Developed using a high-quality open source components and software , which helped to achieve the equation of high-quality and low cost , successfully

Development Philosophy

- Philosophy of development is based on two principles: the principle of Simplify methods of production and development of services and the principle of depending on the open source components and software
- The Platform facilitates the development process of services, so that the development of high-quality services achieved without having to learn a lot of sophisticated techniques or the use of specialist firms for the development process
- Facilitate the development of services makes the process of learning easy and fast for new comers developers who did not use the platform before
- Facilitate the development of services also contributing to the rapid completion of the development process
- Building services through the platform Guarantee high quality and high reliability
- Depending on open source components and software helped in reducing the cost of building the platform itself
- Also Help in gaining a lot of ready-made Features .
- Also , Depending on open source components and software make the platform Independent of any other software vendors

Baladiya Platform Architecture



Overview

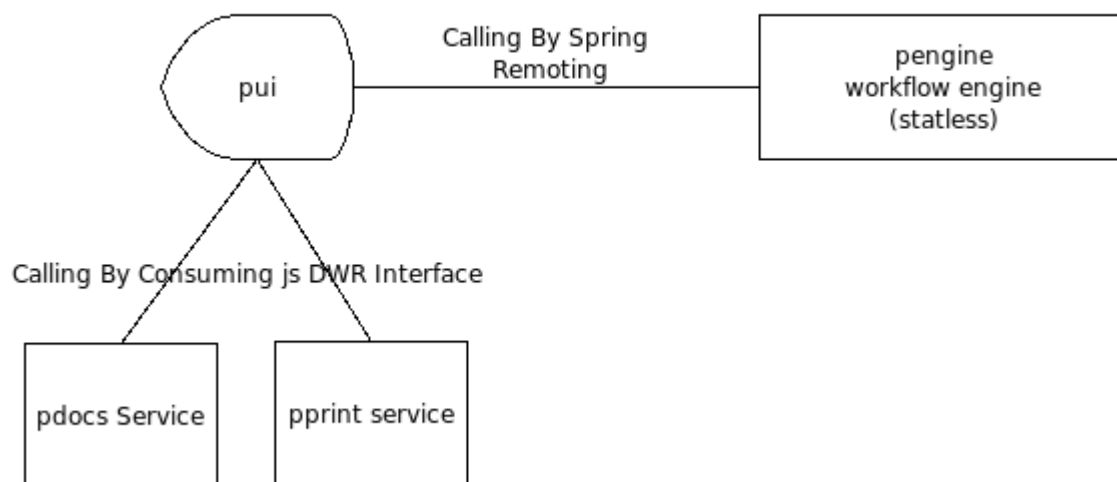
- Architect consists of 3 types of components
 - UI Applications
 - Services (state-full , stateless)
 - Asynchronized Tasks
- UI application consume state-full services by JS interface within jsp page (mash-ups services)

- i.e The Integration between Platform state-full services done on the browser (tier)

UI Applications

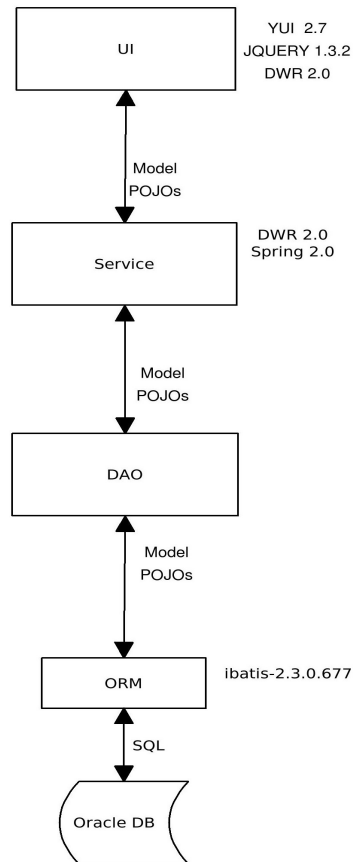
- **pui (Employees UI) :**
 - Hold all employee eServices UI.
 - Employee can interact with eServices throw this UI.
 - Hold Employee inbox for pending tasks (workflows)
 - Employee could search , follow up his workflow
- **pupui (Citizens UI) :**
 - Hold All citizens eServices UI
- **padmin (Admin UI) :**
 - RBAC privilege Control
 - Reporting and global Monitoring
 - Ministry Hierarchy Tree Maintenance
- **pdesigner (work flow Designers and forms Builder UI)**
 - Design Workflow (workflow definition)
 - Build eServices Forms (Drag and Drop)

a sample for how pui communicate to other service in the below diagram



Web Applications Template

the above web application and any other web application (non platform related) developed by The java team , apply the following web template restrictedly



Web Template Rules

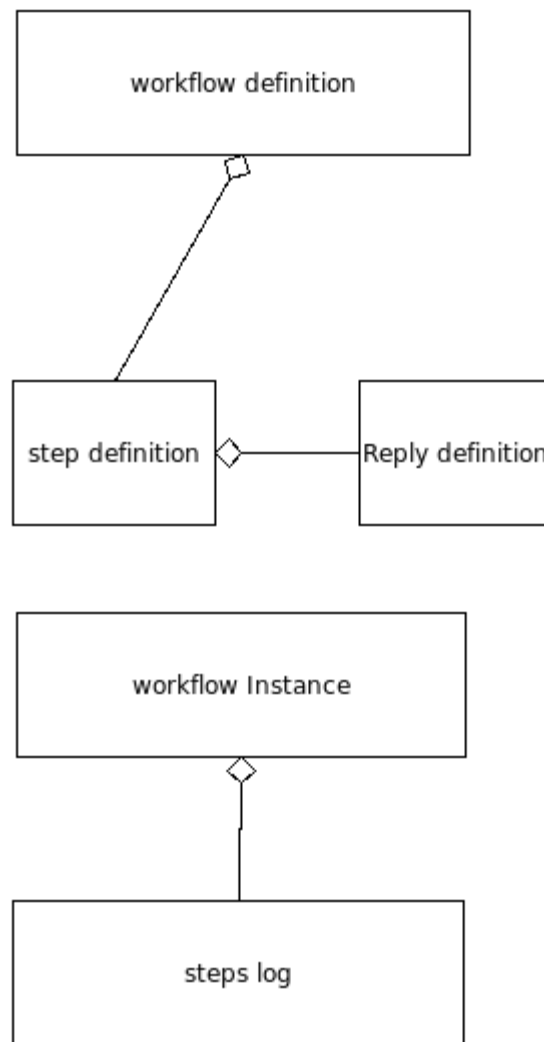
- Keep DAO as dummy as possible (just basic tasks save – update – select -delete)
- Move any Biz logic to Service Layer
- a DAO could not call another DAO or any services
- Mixing DAOs should be in Service layer
- a Service could not call another Service
- mixing Services done on the Browser by mashing service JS APIs.
- In UI wright HTML as less as you can . Instead use YUI or jQuery UI components as much as you can .
- In UI separate Markup from JS . i.e use jquery events binding mechanism
- Every Module inside the application has Only one URL (REST style on modules level)

Services

pengine (workflow Engine)

The workflow engine is Meta-Driven db web application , with Service Interface , using spring remoting . And could easily has other interfaces like SOAP .

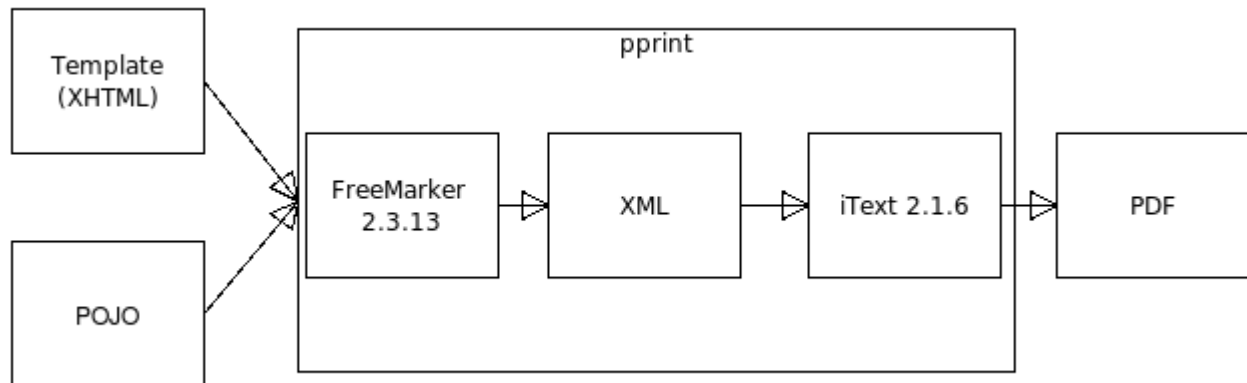
The main model of the engine in the below digram



- Workflow Authrization Model Based on RBAC
- System Steps in The workflow executed in asynchronized way , by pscheduler
- Integration Points with other systems Isolated in the System Steps

pprint Print Service

It is a stateless service with a JS interface to generate PDF for printing the eServices forms.



pforms Forms Service

Form Service is responsible for generating Forms which Build by form Builder (pdesigner) . It is a meta driven db application. And its mode as the flowing

