



Individual Project

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Candidate Screening System

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Project Report



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Executive Summary

In the world of recruitment, matching the right talent to the vacancy is always a challenge. When a vacancy is posted, there will usually be many applications and the challenge is the arduous task of sieving through the sea of profiles.

For this reason, I have come up with a simple application to help recruiters screen the profiles that are submitted for the available positions.

The purpose for this application is to cut down the time that the recruiters take to screen the profiles.

This application makes use of the KIE Workbench for the workflow, as well as the Decision Tree to execute the main logic.

Business Problem Background

Recruiters spend a lot of their time matching the right candidate for a particular vacancy. This has become increasingly challenging as more variations in skillsets emerge in the new information centric economy.

Filtering through the hundreds, and sometimes thousands, of profiles is one reason that many recruiters spend less time on value added tasks like interacting with suitable candidates and keeping up with recruiters requirements.

Imagine the scenario where we may end up placing the less suitable candidates in the job positions, or reaching out to the suitable ones too late.

We need a better way to streamline the screening process, for which the requirements are spelled out in a job scope. And we need to be able to filter through the many profiles quickly and reach out to the right candidates before they move on to other pastures.

Project Solution

This application does a quick screening by getting the candidate to fill in some vital details about himself/herself.

The KIE Workbench is employed to provide the workflow as well as the Decision Tree which comes with the built-in logic execution function.

Based on the information entered, the application will determine if there is a match. If the result is positive, the profile will go on to a recruiter for review. Otherwise it will exit the workflow.

Due to time constraint, the application is deliberately made simple. However, it can be extended with added data objects and workflow details to suit an actual recruitment situation.

Implementation

Data Objects

In this simple setup, only 4 data objects are created.

- 1) consulting – whether the candidate has a consulting background
- 2) proceed – flag indicating ‘proceed’ to hire
- 3) programming – possess programming experience
- 4) yrsExp10 – more than 10 Years of Experience

The idea behind this setup is to match a suitable candidate who would meet some requirements across the 3 main factors (1) Consulting background, (2) Programming skills, (3) Extensive experience.

The screenshot shows the KIE Workbench IDE interface. The top navigation bar includes the KIE logo, a yellow 'IDE' badge, and a 'Menu' dropdown. Below the navigation bar, the breadcrumb trail reads: Spaces > Candidate-Screening > Candidate-Screening-Proj > master > ScreeningDO. The main content area is titled 'ScreeningDO.java - Data Objects' and has tabs for 'Model', 'Overview', and 'Source'. The 'Model' tab is active, displaying a table of data objects for 'ScreeningDO'. A '+ add field' button is located in the top right corner of the table area. The table has four columns: Identifier, Label, Type, and an action column with a 'Delete' button for each row.

Identifier	Label	Type	
consulting	Consulting Background	Boolean	Delete
proceed	Proceed to Next Step	Boolean	Delete
programming	Programming Exp with Java and/or Py...	Boolean	Delete
yrsExp10	More Than 10 Years Exp	Boolean	Delete

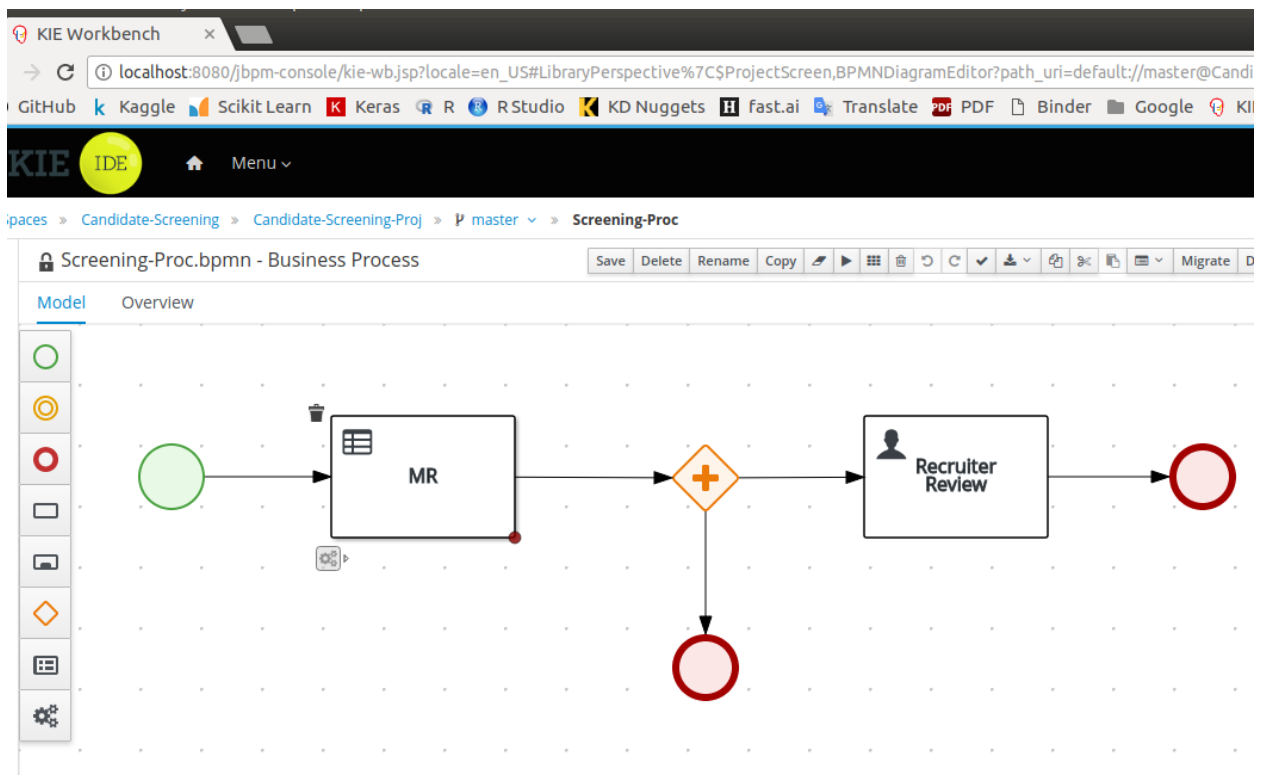
Implementation

WORKFLOW

The workflow has a Business Rule task to execute the logic using the Decision Tree, as per the Rule Flow Group setting below.

After this step, the Recruiter will do a review if the result is a match.

Otherwise, the profile goes out of the workflow and ends.



Implementation

Decision Tree

Using the Decision Tree, the filtering is carried out based on the logic. The value for Proceed is default to False.

- 1) IF Consulting Background
AND Programming Skills
AND >10 Years Experience
THEN Proceed
- 2) IF Consulting Background
AND Programming Skills
THEN Proceed
- 3) IF Programming Skills
AND >10 Years Experience
THEN Proceed

The screenshot shows the KIE Workbench IDE interface. The browser address bar indicates the URL: `localhost:8080/jbpm-console/kie-wb.jsp?locale=en_US#LibraryPerspective%7C$ProjectScreen,BPM`. The KIE IDE logo is visible in the top left. The breadcrumb navigation shows: `Spaces > Candidate-Screening > Candidate-Screening-Proj > master > ScreeningDT`. The main view is titled `ScreeningDT.gdst - Guided Decision Tables` and has tabs for `Model`, `Columns`, `Overview`, `Source`, and `Data Objects`. The `Model` tab is active, displaying a table with 7 rows and 6 columns. The columns are: `#`, `Description`, `Consulting Background`, `Programming Exp`, `Years Exp`, and `Action`. The table contains 7 rows of data, each with a checkbox in the `Action` column.

#	Description	Consulting Background	Programming Exp	Years Exp	Action
1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

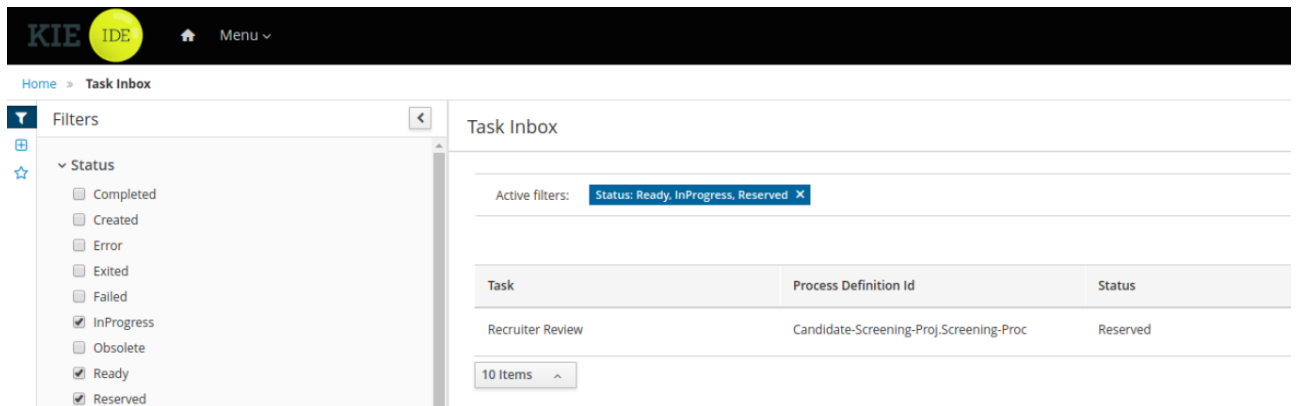
Project Validation

Executing the Workflow

The user iss-barry logs in to execute the workflow with the screen showing the status below.

He will Start the process, and then Complete it to end the workflow.

For the test scenario, a positive set of inputs were given such that the Proceed flag becomes True.



The screenshot displays the KIE IDE interface, specifically the Task Inbox. The top navigation bar includes the KIE IDE logo, a home icon, and a menu dropdown. Below the navigation bar, the breadcrumb path "Home > Task Inbox" is visible. The main content area is divided into two sections: "Filters" on the left and "Task Inbox" on the right. The "Filters" section shows a list of status options with checkboxes: Completed, Created, Error, Exited, Failed, InProgress (checked), Obsolete, Ready (checked), and Reserved (checked). The "Task Inbox" section displays a table of tasks. Above the table, it shows "Active filters: Status: Ready, InProgress, Reserved" with a close button. The table has three columns: Task, Process Definition Id, and Status. One task is listed: "Recruiter Review" with Process Definition Id "Candidate-Screening-Proj.Screening-Proc" and Status "Reserved". Below the table, a button indicates "10 Items".

Task	Process Definition Id	Status
Recruiter Review	Candidate-Screening-Proj.Screening-Proc	Reserved