RKS Skills Management

RKS

Skills Management Software  
Design

Target Release: 1.0  
Review Version: 1  
Status: Draft

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# Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Author** | **Comments** |
|  | 1 |  |  |
|  | 2 |  |  |
|  | 3 |  |  |
|  | 4 |  |  |
|  | 5 |  |  |

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# Contacts

|  |  |
| --- | --- |
| **Position/Responsibility** | **Person** |
| Author/Owner | Nagesh Hugar, Anto Thomson |
| Reviewer/Approver | Ravindra KS |

# Glossary & Abbreviations

|  |  |
| --- | --- |
|  |  |
|  |  |
|  |  |

# Feature Description

This document describes the high level design document of Skills Management Software, which provides the ability to effectively manage and coordinate employee skills in the workplace to better achieve the business goals and objectives. By using skill management software to access your employee you can put the right employee at the right time.

## Related Documents

<Add reference to FRD, earlier design documents, PoC, reference to technical notes from Internet>

# Approach

**Tiers and Technologies**



* + **Presentation Layer**
    - ASP.Net
    - C#
    - .Net Framework 4.5 and above
  + **Business Logic Layer**
    - WCF Windows Service
    - Ado.net
    - C#
  + **Database Layer**
    - SQL
    - Oracle

# Technical Design

## Database Design

Below tables will be required as per the high level understanding on the software. It will require many modifications.

**Organizations**

This table stores the information related to Organization. Every table will have OrgId column to support multitenancy.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Column** | **DataType** | **Null ?** | **Constraint** | **Default** | **Comments** |
| OrgId | Int | NOT NULL | PRIMARY | - |  |
| OrgName | nvarchar(64) | NOT NULL | UNIQUE | - |  |

**Resources**

This table stores the information related to Employees.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Column** | **DataType** | **Null ?** | **Constraint** | **Default** | **Comments** |
| resourceId | Int | NOT NULL | PRIMARY | - | resourceId of the Resource, automatically created when the user registers. |
| OrgId | Int | NULL | - | - | Organization Id |
| Username | nvarchar(64) | NOT NULL | UNIQUE | - | Username of the Resource |
| Password | varchar(64) | NOT NULL | - | - | Password of the Resource |
| FirstName | nvarchar(32) | NOT NULL | - | - | First Name of the Resource |
| LastName | nvarchar(32) | NOT NULL | - | - | Last Name of the Resource |
| Email | nvarchar(64) | NOT NULL | - | - | Email address of the Resource |
| Title | nvarchar(64) | NOT NULL | - | - | Designation of the Resource |
| Created | Datetime | NOT NULL | - | - | Created Date of the Resource profile |
| Modified | Datetime | NULL | - | - | Modified Date of the Resource profile |
| StartDate | Datetime | NOT NULL | - | - | Modified Date of the Resource |
| LastDate | Datetime | NULL | - | - | Last Date of the Resource |
| IsActive | Bit | NOT NULL |  | 1 | Is Resource still working with same company? |
| IsManager | Bit | NOT NULL |  | 0 | Is Resource is a Manager? |
| IsAdmin | Bit | NOT NULL |  | 0 | Is Resource is an Administrator? |

**Portfolios**

This table stores the information related to different portfolios in the organization. Ex: CRM, ERP, SCM

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Column** | **DataType** | **Null ?** | **Constraint** | **Default** | **Comments** |
| Id | Int | NOT NULL | PRIMARY | - | Portfolio Id |
| OrgId | Int | NULL | - | - | Organization Id |
| Name | nvarchar(32) | NOT NULL | UNIQUE | - | Portfolio name |
| IsActive | Bit | NOT NULL |  | 1 | Is Portfolio still exist? |

**Products**

This table stores the information related to different products in the organization.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Column** | **DataType** | **Null ?** | **Constraint** | **Default** | **Comments** |
| Id | int | NOT NULL | PRIMARY | - | Product Id |
| OrgId | Int | NULL | - | - | Organization Id |
| Name | nvarchar(32) | NOT NULL | UNIQUE | - | Product name |
| IsActive | Bit | NOT NULL |  | 1 | Is Product still exist? |
| PortfolioName | nvarchar(32) | NULL | FORIGNKEY | - | Portfolio name |

**SkillsDefinitions**

This table stores the information related to different skills used in the different products.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Column** | **DataType** | **Null ?** | **Constraint** | **Default** | **Comments** |
| Id | int | NOT NULL | PRIMARY | - | Skill Id |
| OrgId | Int | NULL | - | - | Organization Id |
| Name | nvarchar(64) | NOT NULL | UNIQUE | - | Skill name |
| SkillType | nvarchar(32) | NOT NULL | - | - | Technical/Functional |
| Beginner | nvarchar(250) | NOT NULL | - | - | Beginner Skills |
| Intermediate | nvarchar(250) | NOT NULL | - | - | Intermediate Skills |
| Proficient | nvarchar(250) | NOT NULL | - | - | Proficient Skills |
| Advanced | nvarchar(250) | NOT NULL | - | - | Advanced Skills |
| Expert | nvarchar(250) | NOT NULL | - | - | Expert Skills |
| Created | Datetime | NOT NULL | - | - |  |
| Modified | Datetime | NULL | - | - |  |

**SkillAssociations**

This table stores the information related to skills associated to different products.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Column** | **DataType** | **Null ?** | **Constraint** | **Default** | **Comments** |
| Id | int | NOT NULL | PRIMARY | - | Skill Association Id |
| OrgId | Int | NULL | - | - | Organization Id |
| ProductName | nvarchar(32) | NOT NULL | - | - | Product name |
| SkillName | nvarchar(64) | NOT NULL | - | - | Skill name |
| SkillType | nvarchar(32) | NOT NULL | - | - | Technical/Functional |
| Categoty | nvarchar(32) | NOT NULL | - | - | Core/Optional |
| Role | nvarchar(32) | NOT NULL | - | - | Dev/QA/BA |
| Created | Datetime | NOT NULL | - | NOW() |  |
| Modified | Datetime | NULL | - | - |  |

**SkillAssesment**

This table stores the information related to skills assessment of each employee in different products.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Column** | **DataType** | **Null ?** | **Constraint** | **Default** | **Comments** |
| Id | int | NOT NULL | PRIMARY | - | Skill assessment Id |
| OrgId | Int | NULL | - | - | Organization Id |
| ProductName | nvarchar(32) | NOT NULL | - | - | Product name |
| SkillName | nvarchar(64) | NOT NULL | - | - | Skill name |
| SkillType | nvarchar(32) | NOT NULL | - | - | Technical/Functional |
| Categoty | nvarchar(32) | NOT NULL | - | - | Core/Optional |
| Role | nvarchar(32) | NOT NULL | - | - | Dev/QA/BA |
| resName | nvarchar(64) | NOT NULL | - | - | Resource Name |
| resRating | Float | NULL | - | - | Resource Rating |
| Manager | nvarchar(64) | NOT NULL | - | - | Manager Name |
| ManagerRating | Float | NULL | - | - | Manager Rating |
| FinalRating | Float | NULL | - | - | Final Rating |
| Created | Datetime | NOT NULL | - | - |  |
| Modified | Datetime | NULL | - | - |  |

**KnowledgeActions**

This table stores the information related to skills assessment of each Resource in different products.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Column** | **DataType** | **Null ?** | **Constraint** | **Default** | **Comments** |
| Id | int | NOT NULL | PRIMARY | - | Knowledge Action Id |
| OrgId | Int | NULL | - | - | Organization Id |
| ProductName | nvarchar(32) | NOT NULL | - | - | Product name |
| TrainingCourse | nvarchar(64) | NOT NULL | - | - | Training course name |
| ActionType | nvarchar(32) | NULL | - | - | Online/Workshop/On-job-training |
| Duration | nvarchar(32) | NULL | - | - |  |
| SelfAssesment | nvarchar(250) | NULL | - | - |  |
| Status | nvarchar(16) | NULL | - | - |  |
| Created | Datetime | NOT NULL | - | - |  |
| Modified | Datetime | NULL | - | - |  |

## APIs/modules

<new APIs or existing APIs affected by the changes>

## Logging Reqs/Changes for Analytics

<Specific needs to log actions for analytics>

## Performance Implications

<Impact on performance of the system>