Requirements Document

Business needs

The company wishes to meet the Service Level Agreements (SLA) with its customers, that is, meet the change requests from the customers on time.

Functional Requirements

* The time needed to retrieve the artifacts pertaining to the change requests has to be reduced.
* The number of wrong linkages of artifacts must be minimized.
* Wrong versions of the artifacts should not be identified. Builds must be based on the correct code versions.
* Access to artifacts created and the associated linkages must be restricted to the corresponding roles of the team members.
* Only authorized team members must be able to view and manage traceability.

System Features

* Define the model for every project
* Update the model for every project
* Manage user roles
* View and manage traceability linkages
* Generate reports based on the traceability

Use case descriptions

C:\Users\Aish\AppData\Local\Microsoft\Windows\INetCacheContent.Word\TEAM3_USE_CASE.PNG

Figure : Use case Diagram

Use case descriptions

|  |  |
| --- | --- |
| Use case name | **Manage Instances** |
| Use case ID | UC101 |
| Primary actors | Developers |
| Secondary actors | Model manager |
| Brief Description | Other users apart from Project Manager create, update and delete instances in the model. |
| Preconditions | The model for the particular project has been created.  The meta properties of the instances are visible to the user. |
| Flow of events | 1. The user views the existing instances accessible to him (according to his role in the project). 2. IF the user wants to create instances, he views the meta properties of the instances, fills in values for each of these accordingly and saves them as a separate instance. 3. IF the user wants to create another instance, he repeats step 2. 4. IF the user wants to edit or delete the intended instances, he selects the edit or delete option. |
| Post conditions | The instances for the particular entity are updated. |
| Priority | High |
| Alternate flows and exceptions | - |
| Non-behavioral requirements | The user must find it easy to create, update and delete instances.  The user must not be able to make changes in any of the instances that are out of his access. |
| Assumptions | 1. The user must be able to view the previous and next instances related to the entity he is working on. |

|  |  |
| --- | --- |
| Use case name | **Manage linkages/links** |
| Use case ID | UC102 |
| Primary actors | Developers |
| Secondary actors | Model manager |
| Brief Description | Other users apart from Project Manager links the instances that are accessible to them. |
| Preconditions | The relevant instances are created and reviewed by the users. |
| Flow of events | 1. The user views the instances phase-wise. 2. He links the intended instances of one artifact to the instances of the previous or next artifacts. 3. The user verifies whether he has linked the instances correctly. 4. IF the user feels he has linked up two instances incorrectly, then he edits or deletes that particular link between these instances. |
| Post conditions | The instances accessible to the user have been linked and reviewed. |
| Priority | High |
| Alternate flows and exceptions | - |
| Non-behavioral requirements | The user must find it easy to link the instances. He must also find it easy to edit these links when needed. The user must not be able to edit links that are outside of his access. |
| Assumptions | 1. The user must be able to view the previous and next artifacts related to the artifact he is working on. |

|  |  |
| --- | --- |
| Use case name | **View Traceability** |
| Use case ID | UC103 |
| Primary actors | Model manager, Developers |
| Secondary actors | - |
| Brief Description | The users view the traceability between instances of a particular project. |
| Preconditions |  |
| Flow of events | 1. The user selects the project whose traceability he wishes to view. 2. The user also can give instance ID of the |
| Post conditions |  |
| Priority | High |
| Alternate flows and exceptions | - |
| Non-behavioral requirements |  |
| Assumptions |  |

|  |  |
| --- | --- |
| Use case name | **Manage Models** |
| Use case ID | UC104 |
| Primary actors | Model manager |
| Secondary actors | - |
| Brief Description | The model manager can create, edit and delete a model. |
| Preconditions | The model manager has created a new project or opened an existing project. |
| Flow of events | 1. If the model manager has created a new project, then he can create a model for that project. 2. The properties associated with each entity of the model can be created or edited. 3. If the model manager would like to view the model for an existing project for which he has been assigned, then he can view the model or make any changes to the model entities or the properties of the model entities. 4. If the model already created for the project is no longer needed, the model manager can delete the model along with its associated properties. |
| Post conditions | The model entities and properties are updated. |
| Priority | High |
| Alternate flows and exceptions | - |
| Non-behavioral requirements | The model manager must be able to configure the model entities and properties according to his project. |
| Assumptions |  |

|  |  |
| --- | --- |
| Use case name | **Manage Users** |
| Use case ID | UC105 |
| Primary actors | Model manager |
| Secondary actors | - |
| Brief Description | The model manager can add users to a project and assign read/write access permissions to model entities. |
| Preconditions | The model manager has created a model for a particular project. |
| Flow of events | 1. The model manager adds users to his project. 2. The model manager defines the roles that are present in his project. 3. He can either choose from the given roles or add a new role. 4. Once the model manager has defined the project roles, he can assign specific users to these roles. 5. The model manager assigns specific roles to each user involved in the project. 6. For a specific role, he provides read/write permissions to entities in the model. |
| Post conditions | The users for a project and their corresponding access permissions to model entities are updated. |
| Priority | High |
| Alternate flows and exceptions | - |
| Non-behavioral requirements |  |
| Assumptions |  |