**Purpose: To ensure a storage container hierarchy such as Cryo Safe LN2 Tank KL 🡪 LN2 Rack Large Cryo safe KL13 🡪Tissue LN2 Box can be created successfully as a super administrator.**

**Prerequisites:**

Import dump located at /files/caTissue/dump and deploy application.

**Procedure:**

1. Login as a ***super administrator*** ([admin@admin.com](mailto:admin@admin.com), Test123)
2. Navigate to Administrative Data-🡪Storage Container🡪Add page.
3. Select storage type as ***Cryo Safe LN2 Tank KL****.* On selecting a storage type, Verify the details such as Default temperature, Text label for dimension one, Text label for dimension two, Capacity in Dimension one, Capacity in Dimension two, Can hold specimen class, Can hold specimen array type and Can hold specimen type. Refer the expected Output. Enter other details as in table below.

|  |  |
| --- | --- |
| **Storage Type Name** | **Cryo Safe LN2 Tank KL** |
| Parent Location Details | Site :Kidney for translational research core |
| Storage Container Name | Cryosafe 1 |
| Default temperature | -140 |
| Text label for dimension one | Rows |
| Text label for dimension two | Columns |
| Capacity in Dimension one | 38 |
| Capacity in Dimension two | 1 |
| Can hold Collection Protocol Title | None |
| Can hold specimen class | None |
| Can hold specimen array type | None |
| Can hold specimen type | None |

1. Click on Submit.
2. Navigate to Administrative Data-🡪Storage Container🡪Add page.
3. Select storage type as ***LN2 Rack Large Cryo safe KL***. On selecting a storage type, Verify the details such as Default temperature, Text label for dimension one, Text label for dimension two, Capacity in Dimension one, Capacity in Dimension two, Can hold specimen class, Can hold specimen array type and Can hold specimen type. Refer the expected Output.
4. Select Auto from the list in parent location details. Verify the list of containers listed in the drop-down. Select the container as Cryosafe 1 from the list. Refer the expected Output. Enter other details as in table below.

|  |  |
| --- | --- |
| **Storage Type Name** | **LN2 Rack Large Cryo safe KL13** |
| Parent Location Details | Cryosafe 1 |
| Storage Container Name | Cryosafe 1 Rack 3 |
| Default temperature | -140 |
| Text label for dimension one | Rows |
| Text label for dimension two | Columns |
| Capacity in Dimension one | 13 |
| Capacity in Dimension two | 1 |
| Can hold Collection Protocol Title | None |
| Can hold specimen class | None |
| Can hold specimen array type | None |
| Can hold specimen type | None |

1. Click on Submit.
2. Navigate to Administrative Data-🡪Storage Container🡪Add page.
3. Enter details as in following table. On selecting a storage type, Verify the details such as Default temperature, Text label for dimension one, Text label for dimension two, Capacity in Dimension one, Capacity in Dimension two, Can hold specimen class, Can hold specimen array type and Can hold specimen type
4. Select Manual from the list in parent location details. Click on map button. Select the container as ***Cryosafe 1 Rack 3*** from the storage container map. Refer the expected Output. Enter other details as in table below.

|  |  |
| --- | --- |
| **Storage Type Name** | **Tissue LN2 Box** |
| Parent Location Details | Cryosafe 1 Rack 3 |
| Storage Container Name | Cryosafe 1 Box 27 |
| Default temperature | -140 |
| Text label for dimension one | Rows |
| Text label for dimension two | Columns |
| Capacity in Dimension one | 60 |
| Capacity in Dimension two | 10 |
| Can hold Collection Protocol Title | KTRC Minor, KTRC Adult |
| Can hold specimen class | Tissue |
| Can hold specimen array type | None |
| Can hold specimen type | All Tissue |

1. Click on Submit. Refer the expected output.

**Expected Output:**

3) On selecting a storage type, the values highlighted on storage container page should be as per the selected storage type. Refer the table below:

|  |  |
| --- | --- |
| **Name** | **Cryosafe LN2 Tank KL** |
| Default temperature | -140 |
| Text label for dimension one | Rows |
| Text label for dimension two | Columns |
| Capacity in Dimension one | 38 |
| Capacity in Dimension two | 1 |
| Can hold storage type | LN2 Rack Large Cryo safe KL13 |
| Can hold specimen class | None |
| Can hold specimen array type | None |
| Can hold specimen type | None |

7) On selecting a storage type, the values highlighted on storage container page should be as per the selected storage type. Refer the table below.

|  |  |
| --- | --- |
| **Name** | **LN2 Rack Large Cryo safe KL13** |
| Default temperature | -140 |
| Text label for dimension one | Rows |
| Text label for dimension two | Columns |
| Capacity in Dimension one | 13 |
| Capacity in Dimension two | 1 |
| Can hold storage type | Tissue LN2 Box (60\*1) |
| Can hold specimen class | None |
| Can hold specimen array type | None |
| Can hold specimen type | None |

The Auto container list box should display following container in this case: Cryosafe 1

10) On selecting a storage type, the values highlighted on storage container page should be as per the selected storage type. Refer the table below.

|  |  |
| --- | --- |
| **Name** | **Tissue LN2 Box** |
| Default temperature | -140 |
| Text label for dimension one | Rows |
| Text label for dimension two | Columns |
| Capacity in Dimension one | 60 |
| Capacity in Dimension two | 1 |
| Can hold storage type | None |
| Can hold specimen class | Tissue, Fluid and Cell |
| Can hold specimen array type | None |
| Can hold specimen type | All Tissue ,All Fluid and All Cell |

11) On selecting the Map button, storage container map should open. User should be able to assign location in Cryosafe 1 Rack 3 to the container.

12) A message should be displayed as “Storage container created successfully”.

**Verification Logic:**

1. Navigate to Administrative Data-🡪Storage Container🡪Edit page. Search for Storage container Cryosafe 1 Box 27.
2. The storage container should display correct details such as Default temperature, Text label for Dimensions and capacity in dimensions. The created storage container should display specimen class and specimen type values highlighted. Refer the table above for details of ***Cryosafe 1 Box 27.***
3. Navigate to Storage Container🡪View Map page. Select the site ***Kidney for translational research core*** from the container map.
4. Select the above created containers from the map. Click on Container map. The restrictions displayed in container map should be as per the below table:

|  |  |  |  |
| --- | --- | --- | --- |
| **Storage Container Name** | Cryosafe 1 Box 27 | LN2 Rack Large Cryo safe KL13 | Cryo Safe LN2 Tank KL |
| **CP Title** | KTRC Minor, KTRC Adult | All | All |
| **Specimen Class** | Tissue | None | None |
| **Specimen Type** | All tissue | None | None |

1. In CATISSUE\_AUDIT\_EVENT table new record should be entered with IP address equal to the IP address of the machine from which the action was performed and Event\_Timepstamp equal to the date on which the action was performed. Event Type should contain INSERT for catissue\_storageContainer.
2. In CATISSUE\_DATA\_AUDIT\_EVENT\_LOG table Object Name should contain catissue\_storageContainer. Object\_ID is the unique ID of the object inserted. Parent\_ID will be null for the main object. Containment or reference type objects getting added will have a parent\_id equal to the ID of the main Object being inserted. This table refers to CATISSUE\_AUDIT\_EVENT\_LOG table which relates to the CATISSUE\_AUDIT\_EVENT table.
3. In CATISSUE\_AUDIT\_EVENT\_DETAILS table Element name contains the list of attributes that are in catissue\_storagecontainer, catissue\_capacity and catissue\_container\_position.ID of all the reference and containment association classes should also be audited.
4. Refer the data model and audit metadata.xml to find out the classes with containment and reference association with the main class. All the classes and attributes should be audited in respective audit tables.