Purdue Electronic Checkout (PEC) Test Plan

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Use Case 1: As a user, I want to be able to check out a piece of equipment.

> **Test**: 1
>
> A. Check-out 001, launching app, Severity 1.
> B. Go to the standard url, log in to your account.
> C. Your account opens.

> **Test**: 2
>
> A. Check-out 002, checkout equipment, Severity 2.
> B. Select from available equipment list, click checkout.
> C. Verify that the item status is checked out.

Use Case 2: As a user, I want to be able to check in a piece of equipment.

> **Test**: 3
>
> A. Check-in 001, checkin equipment, Severity 2.
> B. Select from checkin equipment list, click check-in.
> C. Verify that the item status is checked in.

> **Test:** 4
>
> A. Check-in 002, checkin equipment, Severity 3.
> B. Search for an equipment that was already checked in.
> C. Verify that the item is no longer checked in

Use Case 3: As a user, upon check-in, I want to be able to submit a comment as well as an overall rating that dictates the condition of a piece of equipment upon my return of it.

> **Test**: 5
>
> A. Check-in Comment 001, checkin equipment, Severity 2
> B. Select from checkout equipment list, input item code, click check in, input description of condition, input condition rating.
> C. Verify that condition of item has been updated and and a comment is present on file.

Use Case 4: As a user, I want to see the entire library of equipment.

> **Test**: 6
>
> A. Library 001, see entire library, Severity 2
> B. Navigate to root page of application.

C. Verify that all items present in database that are not retired are viewable.

Use Case 5: As a user, I want to see the library of available equipment.

> **Test:** 7
>
> A. Library 002, see only devices that are not checked out or reserved, Severity 3
> B. Navigate to root page of the application. Click available equipment filter option.
> C. Verify that no items present are reserved/checked out or retired.
>
> **Test:** 8
>
> A. Library 003, see only devices that are available, Severity 3
> B. Navigate to root page of the application. Click the available equipment filter option.
> C. Verify that all items that are checked in are displayed.

Use Case 6: As a user, I want to be able to see the details of a particular piece of equipment.

> **Test**: 9
>
> A. Equipment 001, see equipment details, Severity 3
> B. Navigate to root page of the application. Click on a piece of equipment with known details.
> C. Assess and verify that displayed details match those known.
>
> **Test**: 10
>
> A. Equipment 002, see equipment details if null, Severity 3
> B. Create piece of equipment with null device details. Navigate to root page of the application. Click on a piece of equipment with known(but null) details.
> C. Assess and verify that displayed details show null state.

Use Case 7: As a user, I want to have an account where I can see what equipment I have currently checked out and when it is due.

> **Test**: 11
>
> A. Account 001, View currently checked out equipment, Severity 2
> B. Log in, see checked out equipment list
> C. Sees list of checked out equipment list

Use Case 8: As an administrator, I want to be able to register a piece of equipment.

> **Test**: 12
>
> A. Admin 001, Register a piece of equipment, Severity 2

B. Log in, click register equipment, fill out form, click register
C. See new equipment in library

Test: 13

A. Admin 002, Register a piece of equipment twice, Severity 3
B. Log in, click register equipment, fill out form, click register - Click register equipment, fill out form, click register
C. See error raised

Use Case 9: As an administrator, I want to be able to retire a piece of equipment from the library.

Test: 14

A. Admin 001, Remove a piece of equipment, Severity 2
B. Log in, find equipment in library, click remove item,
C. Equipment no longer in library

Test: 15

A. Admin 002, Remove a piece of equipment twice, Severity 2
B. Log in, find equipment in library, click to remove item, remove item again,
C. See error raised

Use Case 10: As an administrator, I want to be able to reserve a specific piece of equipment for a specific user on a date range.

Test: 16

A. Admin 001, See user's checked out equipment, Severity 3
B. Log in, click see user
C. See checked out equipment listed. Verify against database.

Use Case 11: As an administrator, I want to be able to view a specific user's history of equipment usage, including statistical breakdowns of lateness of returns, item condition, and types of equipment used.

Test: 17

A. Statistical 001, Access statistics for each device, Severity 3
B. Click Statistics menu button, select device from equipment drop down list
C. View statistics for device

Use Case 12: As a developer, I want to be able to access the Postgres database through nodejs server with a RESTful API.

>   **Test**: 18
>
>   A. RESTful API 002, Access Postgres database through nodejs server with a RESTful API, Severity 1
>   B. Enter get/post request for API.
>   C. Verify query.

Use Case 13 : As a developer, I want the database have a unique index.

>   **Test**: 19
>
>   A. RESTful API 001, Database input, Severity 1
>   B. Use RESTful API to enter a new entry key that is duplicate of an existing one
>   C. Prevent duplicate keys

Use Case 14 : As a developer, I want to be able to manipulate the database through the API.

>   **Test**: 20
>
>   A. RESTful API 002, Database manipulation(insert), Severity 1.
>   B. Use RESTful API and create an new entry of an item.
>   C. Verify the new entry is added into the database through RESTful API.
>
>   **Test**: 21
>
>   A. RESTful API 003, Database manipulation(edit), Severity 1.
>   B. Use RESTful API to edit an existing entry of an item.
>   C. Verify the existing entry has been edited by the desired input