

# Incremental and Regression Testing

## Incremental Testing

### Android

Defect #	Description	Severity	How to Correct
1	Users are allowed to enter an invalid location	3	Add timeout to client and print an error Toast for user to see that timeout has occurred
2	Users allowed to enter a username that does not exist in the system	2	Add method to check if the username is valid
3	Attempts to enter a package might fail due to bad connections and possibly crash	1	Set a timeout for the connection and send a message to the user informing them of a timeout

### Web Service

Defect #	Description	Severity	How to Correct
1	Strings could be null	2	Check for not null before accepting
2	Non-administrator may access all information stored in database system when trying to loading user packages	2	Check whether the user is administrator, if the user is not, only listing the packages that belongs to the user
3	Client won't be able to identify the end of returning string which contains list of packages	3	Return list of packages with a specific character to indicate the end

Web App
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Defect #	Description	Severity	How to Correct
1	No method exists for retrieving the current user from the database after signing in	1	Create a <code>getPersonByUsername</code> method to allow retrieval of the current user upon successful sign-in
2	Non-admin users can access administrative web app areas	1	Check user's administrative status before allowing access to an admin area
3	Accessing an admin page as a non-admin user redirects to the login screen without logging out	3	Redirect the user to their own initial page if they attempt to access the login page while logged in
4	Selecting a user with no packages in the admin screen causes a <code>NullPointerException</code> and does not indicate the cause of the error	2	Display a message and clear the table when a selected user has no packages

## Regression Testing

### Android

Defect #	Description	Severity	How to Correct
1	Username entered may not match the formatting guidelines for user emails.	3	Use same checking method for logins to check the validity of an email before connecting to the web service
2	Android application would attempt to enter a package with missing credentials (such as packageId, associate user email, or location)	2	Check to make sure that all fields are non-empty before attempting to add a package to the web service
3	Package list for students would crash if the list of packages was empty	1	Check if the list of packages is empty before generating the list of packages

### Web Service

Defect #	Description	Severity	How to Correct
1	When adding new packages, if the user information is incorrect, the server won't go further to create a new package in the database	2	Error checking to make sure the user is always valid before modifying the package information
2	When returning errors, we could not differentiate which error was returned where	3	Added print statements to differentiate which error is which

Web App
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Defect #	Description	Severity	How to Correct
1	Package information showed the recipient as the individual who scanned in the package	3	Ensure that the current user is saved in a session so that this information can be properly recorded
2	Users were immediately redirected to the login page after attempting to log in	1	Use a wrapped session (rather than an alternative option) to save the user object returned by
3	Users in the package entry screen would only be filtered after the filter input box lost focus on the page	3	Use text change events (rather than value change events) to retrieve the value of the last name filter field, and enable options to force immediate updates
4	Scanning an ID for a user with no packages would cause an error indicator to be displayed (without affecting app functionality)	3	Ensure that attempts to add packages to the table are only made when the getPackages function returns a non-null value