

# Backend Unit Testing Brainstorming

## NOTE:

1. In table AND code, write all helper methods of a class FIRST before the actual methods (I.E From methods least-dependent of other methods to ones most-dependent on other methods)
2. In-code testing name:
  - void \_test#\_methodTesting\_ExpectedValue\_Input() {}
3. **Yellow Highlighted** = Implemented as unit tests in code
4. "Normal" classification = Intended usage
5. "Error" classification = Unintended (in everyday usage) but handled exceptions
  - Unless specified with 'Normal', all test cases are error classification

## Service/Controller Name Here

Method Name	Things/Scenarios to Test	Who Made This Test

## UserService

Method Name	Things/Scenarios to Test	Who Made This Test
validateRole( <i>String role</i> )	<ul style="list-style-type: none"><li>● role = "customer" - Normal</li><li>● role = "worker" - Normal</li><li>● role = "admin" - Normal</li><li>● role = "customa" - Error</li><li>● role = "worke" - Error</li><li>● role = "adem" - Error</li><li>● role = "" - Error</li></ul>	N/A - No need to test private methods
validateContactNoRegex( <i>String contactNo</i> )	<ul style="list-style-type: none"><li>● contactNo = "0" - Normal</li><li>● contactNo = "0467235443" - Normal</li><li>● contactNo = "abc" - Error</li><li>● contactNo = "" - Error</li></ul>	N/A - No need to test private methods
validateUpdateDetails( <i>String password, String firstName, String contactNo</i> )	<ul style="list-style-type: none"><li>● All parameters correct - Normal</li><li>● password less than 6 characters- Error</li><li>● password more than 20 characters - Error</li><li>● firstName incorrect - Error</li><li>● contactNo incorrect -</li></ul>	N/A - No need to test private methods

	Error	
<code>findUser(String username)</code>	<ul style="list-style-type: none"> <li>• User exists - Normal</li> <li>• User does not exist - Normal</li> </ul>	Matthew Duong
<code>addUser(User user)</code>	<ul style="list-style-type: none"> <li>• User added successfully - Normal</li> <li>• User already exists - Error</li> <li>• User contact number is incorrect - Error</li> <li>• User role is incorrect - Error</li> </ul>	Matthew Duong
<code>updateUser(String username, String password, String firstName, String lastName, String address, String contactNo)</code>	<ul style="list-style-type: none"> <li>• User change their details successfully - Normal</li> <li>• User does not exist - Error</li> <li>• password less than 6 characters - Error</li> <li>• password more than 20 characters - Error</li> <li>• firstName incorrect - Error</li> <li>• lastName empty - Normal</li> <li>• address empty</li> <li>• contactNo incorrect</li> </ul>	Alan Lam

## LoginService

Method Name	Things/Scenarios to Test	Who Made This Test
<code>validateLogin(String username, String password)</code>	<ul style="list-style-type: none"> <li>• User successfully logs in - Normal</li> <li>• Username input is wrong - Error</li> <li>• Password input is wrong - Error</li> </ul>	Matthew Duong

## AGMEServiceService

Method Name	Things/Scenarios to Test	Who Made This Test
<code>addService(AGMEService service)</code>	<ul style="list-style-type: none"> <li>• Service added successfully - Normal</li> <li>• Service already exists</li> </ul>	Matthew Duong
<code>findService(String serviceName)</code>	<ul style="list-style-type: none"> <li>• Service exists - Normal</li> <li>• Service does not exist</li> </ul>	Matthew Duong

# BookingService

Method Name	Things/Scenarios to Test	Who Made This Test
addBooking( <i>CreateBookingRequest request</i> )	<ul style="list-style-type: none"><li>• Successfully created a new booking</li><li>• Could not find customer</li><li>• Could not find worker</li><li>• Could not find service</li><li>• Booking date is before present</li><li>• Booking date is as soon as request is made - Error</li><li>• Booking date is a long time after present - Success</li></ul>	Matthew Duong

# UserController

Method Name	Things/Scenarios to Test	Who Made This Test
createNewUser	<ul style="list-style-type: none"><li>• Successfully created a new user (no address, customer) - Normal</li><li>• Successfully created a new user (no address, worker) - Normal</li><li>• Successfully created a new user (no address, admin) - Normal</li><li>• Successfully created a new user (address, customer) - Normal</li><li>• Username blank</li><li>• Username below 6 characters</li><li>• Username above 20 characters</li><li>• Password blank</li><li>• Password below 6 characters</li><li>• Password above 20 characters</li><li>• Name blank</li><li>• Contact Number blank</li><li>• Contact Number not numbers</li><li>• Role blank</li></ul>	Matthew Duong

	<ul style="list-style-type: none"> <li>• Role not correct</li> <li>• Customer already exists</li> </ul>	
updateUser	<ul style="list-style-type: none"> <li>• Successfully update user details - Normal</li> <li>• Username doesn't exist in database</li> <li>• Username empty</li> <li>• Username below 6 characters</li> <li>• Username above 20 characters</li> <li>• Password empty</li> <li>• Password below 6 characters</li> <li>• Password above 20 characters</li> <li>• Firstname empty</li> <li>• Lastname empty - Normal</li> <li>• Address empty - normal</li> <li>• Contact Number empty</li> <li>• Contact Number not numbers</li> </ul>	Matthew
createNewUser	<ul style="list-style-type: none"> <li>• Username blank</li> <li>• Password blank</li> <li>• Username above 20 characters</li> <li>• Name blank</li> <li>• Contact Number blank</li> <li>• Username below 6 characters</li> </ul>	Hamed Gaveen
updateUser	<ul style="list-style-type: none"> <li>• Update password with Max boundary value 20</li> <li>• Password empty</li> <li>• Contact Number empty</li> <li>• Update password with Min boundary value 6</li> <li>• Password blank</li> <li>• Role blank</li> </ul>	Hamed Gaveen

## AGMEServiceController

Method Name	Things/Scenarios to Test	Who Made This Test
createNewService	<ul style="list-style-type: none"> <li>• Successfully made a new service - Normal</li> <li>• Service already exists</li> <li>• Service name empty</li> <li>• Service price empty</li> <li>• Service price larger than 5 digits</li> <li>• Service price at 5 digits</li> <li>• Service price has 0</li> </ul>	Matthew Duong

	decimal place - Normal • Service price has 1 decimal place - Normal • Service price has 2 decimal places - Normal • Service price has 3 decimal places	

## LoginController

Method Name	Things/Scenarios to Test	Who Made This Test
validate	• Successfully log in • Username does not exist in database • Username is wrong • Password is wrong • Username is empty • Password is empty	Matthew Duong