Black Box Testing

For the black box testing, the boundary value analysis testing will be used. Input values at the boundaries of the different screens will be tested, specifically the minimum and maximum values.

Boundary Value Analysis testing will be applied to the following screens.

* Login Screen and Sign-up screen: Boundary input values will be tested such as the minimum and maximum number of characters for password length. Password lengths exceeding the maximum length as well as no passwords entered at all, will be tested.  
  Expected outcomes for valid passwords should be successfully creating an account, storing the username and password in a database and being able to log in successfully.  
  Expected outcomes for invalid passwords should display an error message and prevent users from creating accounts and logging in.
* Virtual Room creation screen: The maximum and minimum values of the allowed room dimensions will be tested as well as values exceeding the maximum and values preceding the minimum. The maximum number of furniture will be tested and the number of furniture items exceeding the maximum.   
  Expected outcomes should be a room generating correctly for valid room dimensions while room dimensions outside these boundaries should be rejected. When the maximum number of furniture is reached, the interface should prevent the user from adding more furniture by disabling the furniture selection.
* Furniture and Paint Catalogue screen: Furniture items that are sold out will be tested to determine what happens when they are added to the payment interface.  
  Expected outcomes should be that sold-out furniture items should be disabled from being selected.
* Payment interface: Test different card numbers, such as valid and invalid card numbers. Valid and invalid expiry dates and CVV’s should be tested.  
  Expected outcomes should be that the payment button is disabled when invalid card details are entered. It should only be enabled when valid card details are entered. The payment will then be processed when the payment button is clicked.
* Test purchasing dates at the boundaries to verify the purchases made. The expected outcome should be an interface that displays the corrected purchasing history for the correct dates selected.