

Milestone 7:

- Describe one unit test case for each of your components
- Describe one validation test case for the entire software system

Team CABS:

Marcus Blaisdell

Vivek Sandhinti

Joseph Crissey

Christian Asivido

Unit Tests:

Test case type	Black box
Test target	Web Portal Applet (Web Portal component)
Test input	“Software Engineering Principles I” in search box
Test output	Command line display:
	Software Engineering Principles I

Test case type	Black box
Test target	Patron class (Patron component)
Test input	<p>Instantiate with the following:</p> <pre> Patron patron1 = new Patron (1122334455); ArrayList<String> mediaList1 = new ArrayList<String>; mediaList1.add("Software Engineering Principles I"); mediaList1.add("Quantum Computing for fun and recreation"); patron1.setName ("John Doe"); patron1.setEmail ("john.doe@wsu.edu"); patron1.setPassword ("supergoodpassword"); patron1.setmediaList (mediaList1); patron1.setUserLevel (1); </pre> <p>Retrieve with:</p> <pre> System.out.println (patron1.ID); System.out.println (patron1.Name); System.out.println (patron1.Email); System.out.println (patron1.password); System.out.println (patron1.mediaList); System.out.println (patron1.userLevel); </pre>
Expected Output	<p>Command line display:</p> <pre> 11223344 "John Doe" john.doe@wsu.edu "supergoodpassword" "Software Engineering Principles I", "Quantum Computing for fun and recreation" 1 </pre>

Test case type	Black box
Test target	Media class (media manager component)
Test input	<pre>Media media1 = new Media("CPTS Book"); media1.setAuthor("Bob"); media1.setCheckedOut(new Patron("Bob")); media1.setDescription("Great Book"); media1.setDueDate(new Date()); media1.setGenre("Good"); media1.setLanguage("English"); media1.setLocation("Here"); media1.setPublisher("WSU"); media1.setReserved(new Patron("Bob")); media1.setSubject("CPTS");</pre>
Expected Output	<pre>if(!media1.getAuthor().equals("Bob")) success = false; if(!(media1.setCheckedOut() == new Patron("Bob"))) success = false; if(!(media1.getDescription().equals("Great Book"))) success = false; if(!(media1.getDueDate() == new Date())) success = false; if(!(media1.getGenre().equals("Good"))) success = false; if(!(media1.getLanguage().equals("English"))) success = false; if(!(media1.getLocation().equals("Here"))) success = false; if(!(media1.getPublisher().equals("WSU"))) success = false; if(!(media1.getReserved() == new Patron("Bob"))) success = false; if(!(media1.getSubject().equals("CPTS"))) success = false; if(success){ System.out.print("Media Testing Successful"); } else { System.out.print("Media Testing Failed"); }</pre>

Test case type	Black box
Test target	Database class (database component)
Test input	<pre> bool isSuccessful = addUser(patron1); if (isSuccessful != True) { System.out.println ("There was an error creating the record"); } bool isSuccessful = addMedia(media1); if (isSuccessful != True) { System.out.println ("There was an error creating the record"); } Patron patron1 = getPatron (1122334455) System.out.println (patron1.ID); System.out.println (patron1.Name); System.out.println (patron1.Email); System.out.println (patron1.password); System.out.println (patron1.mediaList); System.out.println (patron1.userLevel); Media media1 = getMedia("CPTS Book"); System.out.println (media1.GetTitle()); System.out.println (media1.getAuthor()); System.out.println (media1.getCheckedOut()); System.out.println (media1.getDescription()); System.out.println (media1.getDueDate()); System.out.println (media1.getGenre()); System.out.println (media1.getLanguage()); System.out.println (media1.getLocation()); System.out.println (media1.getPublisher()); System.out.println (media1.getReserved()); System.out.println (media1.getSubject()); </pre>
Expected Output	<p>Command line display:</p> <pre> 11223344 "John Doe" john.doe@wsu.edu "supergoodpassword" "Software Engineering Principles I", "Quantum Computing for fun and recreation" 1 CPTS Book Bob Bob Great Book </pre>

	05/05/2017 Good English Here WSU Bob CPTS
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Validation test:

From Use Cases:

- 1. Patron looks up a book through the access terminal**
2. The book availability is determined
3. Book location is provided to patron
4. Patron locates book in library and decides to check out book
5. Patron visits librarian assistant to checkout book
- 6. Librarian assistant authenticates patron with their Cougar Card**
- 7. Librarian assistant checks out book to patron**
8. Patron leaves with book

Test Case Type	Validation
Test Target	Library Management Software, CheckOutBook Process
Test1 input:	“Software Engineering Principles I” in search box
Test1 output:	“Software Engineering Principles I” “1.2.3”
Test2 input:	1122334455 “Software Engineering Principles I”
Test2 output:	John Doe “Software Engineering Principles I” 05/05/2017