Test Case #	Purpose of the test case	Input Data	Expected Output
1	Testing to see if the .toString() method works in the Book class	“A, Programming in Java, 3/20/2010”	Book#1001::Programming in Java::3/20/2010::is available.
2	Testing to see if the add method of the Library class works, also tests the printing.	“A, Programming in Java, 3/20/2010” “A, Data Science, 2/29/2008” “PA”	Book#1001::Programming in Java::3/20/2010::is available. Book#1002::DataScience::2/29/2008::is available.
3	Testing to see if the remove method of the Library class works.	“A, Programming in Java, 3/20/2010” “A, Data Science, 2/29/2008” “R, 1001” “PA”	Book#1002::DataScience::2/29/2008::is available.
4	Testing to see if the checked out variable of the book in the library is being changed to false Printing out what the checked out variable is.	“A, Programming in Java, 3/20/2010” “O, 1001” “O, 1002”	Checked out Variable returns true You’ve checked out Book#1001 Book#1002 is not available.
5	Testing the return method of the library class.	“A, Programming in Java, 3/20/2010” “I, 1001” “O, 1001” “I, 1001” “I, 1002” “I, 1001”	Unable to return Book#1001 You’ve checked out Book#1001 Book#1001 return has completed. Thanks! Unable to return Book#1002 Unable to return Book#1001
6	Testing the print method in the library class for printing by date, in ascending order	“A, Programming in Java, 3/20/2010”” “A, C Language, 3/20/2009” “A, JavaScript, 2/20/2010” “A, Python, 3/10/2010” PD	**List of books by dates published. Book#1002::C Language::3/20/2009::is available. Book#1003::JavaScript:2/20/2010::is available. Book#1004::Python::3/10/2010::is available. Book#1001::Programming in Java::3/20/2010::is available. **End of list
7	Testing the print method in the library class for printing by number, in ascending order	“A, Programming in Java, 3/20/2010”” “A, C Language, 3/20/2009” “R, 1002” “A, JavaScript, 2/20/2010” “A, Python, 3/10/2010” “A ,Standards, 3/20/2009 PN	**List of books by book numbers. Book#1001::Programming in Java::3/20/2010::is available. Book#1003::JavaScript:2/20/2010::is available. Book#1004::Python::3/10/2010::is available. Book#1005:Standards::3/20/2009::is available. **End of list
8	Testing out the equals() method, determining if the Object that is inputted is a book and checking if it is equal to another book.	“A, Programming in Java, 3/20/2010”” “A, C Language, 3/20/2009”	Book 1: Programming in Java Book 2: C Language Book1.equals(Book1) → returns true Book1.equals(Book2) → returns false

	• Case 1: Equal Books • Case 2: Not Equal books		
9	Testing to see if the print methods work properly if the Library is empty	PA PD PN	Library catalog is empty! Library catalog is empty! Library catalog is empty!
10	Testing to see if the find() method in the Library Class works using the equals() method in the book class	"A, Programming in Java, 3/20/2010"" "A, C Language, 3/20/2009" Books[0] = Programming in Java Books[1] = C Language	find(Programming in Java) → returns 0 find(C Language) → returns 1 find(JavaScript) → returns -1 indicating not found.
11	Testing to see if the grow() method works in the Library class Printing out the length of the books array	Printing books.length "A, Programming in Java, 3/20/2010"" "A, C Language, 3/20/2009" "A, JavaScript, 2/20/2010" "A, Python, 3/10/2010" "A ,Standards, 3/20/2009 Printing books.length PA	Books.length = 4 Books.length = 8 Book#1001::Programming in Java::3/20/2010::is available. Book#1002::C Language::3/20/2009::is available Book#1003::JavaScript:2/20/2010::is available. Book#1004::Python::3/10/2010::is available. Book#1005:Standards::3/20/2009::is available.
12	Test the isValid() method, which determines if the entered date exists. The method tests if the month is valid, if the day exists in that month and if the date is greater than the minimum date and not in the future. • **Case 1:** Date is valid, method returns true • **Case 2:** Date is not valid, method returns false	**-Case 1:** Instance #1: "3/6/1955" Instance #2:"2/29/2020" Instance #3: "" -**Case 2:** Instance #1: "13/10/2016" Instance #2: "1/32/2016" Instance #3: "0/32/2016" Instance #4: "1/0/2016" Instance #5: "2/29/2021" Instance #6: "1/10/1899" Instance #7: "1/10/2022"	• Case 1 returns true • Case 2 returns false
13	Testing the Kiosk with valid and invalied inputs. If there are invalid inputs then it will print Invalid Command! Otherwise it will perform an action for the Library.	**-Case 1:** Instance 1:"A, Programming in Java, 3/20/2010" Instance 2:"R,10001" Instance 3:"O,10001" Instance 4:"I,10001" Instance 5: "Q" **-Case 2:** Instance 1: "" Instance 2: " " Instance 3: "A,Programming In Java" Instance 4: "A"	• Case 1 performs associated command • Case 2 prints "Invalid Command!"

		Instance 5: “R” Instance 6: “O” Instance 7: “I” Instance 8: “PD,10001” Instance 9: “PA, Instance 10: “PN, book”	