System Test Plan: PatientRecords program

Introduction: The text in bold in the **Description** column represents the test inputs.

Test Files: (List each test file below.)

Test ID	Description	Expected Results	Actual Results

testTooFewArgs
 	
Author: Dr. Balik
	$ java -cp bin PatientRecords	`Usage: java -cp bin PatientRecords infile outfile max_patients`
		
		`Program quits.`
			`Usage: java -cp bin PatientRecords infile outfile max_patients`
			
			`Program quits.`

testTooManyArgs
 	
Author: Dr. Balik
	$ java -cp bin PatientRecords test-files/patients.txt test-files/updatedPatients.txt 25 10	`Usage: java -cp bin PatientRecords infile outfile max_patients`
		
		`Program quits.`
			`Usage: java -cp bin PatientRecords infile outfile max_patients`
			
			`Program quits.`

testNonintegerMax
 	
Author: Dr. Balik
	$ java -cp bin PatientRecords test-files/patients.txt test-files/updatedPatients.txt twenty	`Usage: java -cp bin PatientRecords infile outfile max_patients`
		
		`Program quits.`
			`Usage: java -cp bin PatientRecords infile outfile max_patients`
			
			`Program quits.`

testNegativeMax
 	
Author: Dr. Balik
	$ java -cp bin PatientRecords test-files/patients.txt test-files/updatedPatients.txt -15	`Usage: java -cp bin PatientRecords infile outfile max_patients`
		
		`Program quits.`
			`Usage: java -cp bin PatientRecords infile outfile max_patients`
			
			`Program quits.`

testInputFileAccess
 	
Author: Dr. Balik
	$ java -cp bin PatientRecords test-files/notafile.txt test-files/output.txt 25	`Unable to access input file: test-files/notafile.txt`
		
		`Program quits.`
			`Unable to access input file: test-files/notafile.txt`

testOutputFileCreation
 	
Author: Dr. Balik
	$ java -cp bin PatientRecords test-files/patients.txt notadirectory/updatedPatients.txt 150	`Cannot create output file`
		
		`Program quits.`
			`Cannot create output file`

Test ID	Description	Expected Results	Actual Results

testOptionMenu
 	
Author: Dr. Balik
	Delete the test-files/updatedPatients.txt, if it exists
	
	$ **java -cp bin PatientRecords test-files/patients.txt test-files/updatedPatients.txt 5**
		```Patient Records Program – Please choose an option.```
		
		```L – List patients```
		```U – Update patient```
		```A – Add patient```
		```Q – Quit```
		
		```Option:```
			```Patient Records Program – Please choose an option.```
			
			```L – List patients```
			```U – Update patient```
			```A – Add patient```
			```Q – Quit```
			
			```Option:```

testQuit Author: Dr. Balik	Delete the test-files/updatedPatients.txt, if it exists $ **java -cp bin PatientRecords test-files/patients.txt test-files/updatedPatients.txt 5** Menu is displayed Option: **q**	```Program quits.```	```Program quits.```

testInvalidOption
 	
Author: Dr. Balik
	Delete the test-files/updatedPatients.txt, if it exists
	
	$ **java -cp bin PatientRecords test-files/patients.txt test-files/updatedPatients.txt 5**
	
	Menu is displayed
	
	Option: **quit**
	
	(Ctrl+C to stop execution)
		```Invalid option```
		
		```Menu is redisplayed```
			```Invalid option```
			
			```Menu is redisplayed```

testList
 	
Author: Dr. Balik
	Delete the test-files/updatedPatients.txt, if it exists
	
	$ **java -cp bin PatientRecords test-files/patients.txt test-files/updatedPatients.txt 5**
	
	Menu is displayed
	
	Option: **L**
		```ID NAME BIRTHDATE HT WT T BP```
		```1001 Mary Beth Jones 04/21/1972 62 135 102.40 120/90```
		```1002 Thomas A. Berry 06/19/1967 73 198 98.60 130/80```
		```1003 Tricia Patel 11/18/1956 64 105 100.20 120/80```
		
		```Menu is displayed.```
			```ID NAME BIRTHDATE HT WT T BP```
			```1001 Mary Beth Jones 04/21/1972 62 135 102.40 120/90```
			```1002 Thomas A. Berry 06/19/1967 73 198 98.60 130/80```
			```1003 Tricia Patel 11/18/1956 64 105 100.20 120/80```
			
			```Menu is displayed.```

Test ID	Description	Expected Results	Actual Results
testMultipleActions Author: Dr. Balik	Delete the test-files/updatedPatients.txt, if it exists **$ java -cp bin PatientRecords test-files/patients.txt test-files/updatedPatients.txt 5** Patient Records Program - Please choose an option. L - List patients U - Update patient A - Add patient Q - Quit Option: **A** Name: **Mary Jones** Birthdate: **03/04/1999** Height: **67** Weight: **120** Temperature: **99.2** Blood pressure: **120/80** Successful addition Patient Records Program - Please choose an option. L - List patients U - Update patient A - Add patient Q - Quit Option: **B** Invalid option Patient Records Program - Please choose an option. L - List patients U - Update patient A - Add patient Q - Quit	``` ID NAME BIRTHDATE HT WT T BP 1001 Mary Beth Jones 04/21/1972 62 135 102.40 120/90 1002 Thomas A. Berry 06/19/1967 73 198 98.60 130/80 1003 Tricia Patel 11/18/1956 64 105 100.20 120/80 1004 Mary Jones 03/04/1999 67 120 99.20 120/80 ``` Patient Records Program - Please choose an option. L - List patients U - Update patient A - Add patient Q - Quit Option:	``` ID NAME BIRTHDATE HT WT T BP 1001 Mary Beth Jones 04/21/1972 62 135 102.40 120/90 1002 Thomas A. Berry 06/19/1967 73 198 98.60 130/80 1003 Tricia Patel 11/18/1956 64 105 100.20 120/80 1004 Mary Jones 03/04/1999 67 120 99.20 120/80 ``` Patient Records Program - Please choose an option. L - List patients U - Update patient A - Add patient Q - Quit Option:

	Option: **L**		
Test ID	**Description**	**Expected Results**	`Actual Results`

testNoOverwrite
 	
Author: Dr. Balik
	Check timestamp for test-files/existingfile.txt
	
	$ **java -cp bin PatientRecords test-files/patients.txt test-files/existingfile.txt 5**
	
	test-files/existingfile.txt exists - OK to overwrite (y,n)?: **no**
		`Program quits.`
		
		`Timestamp for test-files/existingfile.txt has not changed.`
			`Program quits.`
			
			`Timestamp for test-files/existingfile.txt has not changed.`

testOverwrite
 	
Author: Dr. Balik
	Check timestamp for test-files/existingfile.txt
	
	$ **java -cp bin PatientRecords test-files/patients.txt test-files/existingfile.txt 5**
	test-files/existingfile.txt exists - OK to overwrite (y,n)?: **yes**
	
	Menu is displayed
	
	Option: **q**
		`Program quits.`
		
		`Timestamp for test-files/existingfile.txt has changed.`
			`Program quits.`
			
			`Timestamp for test-files/existingfile.txt has not changed.`

testListWithEmptyInputFile
 	
Author: Dr. Balik
	Delete test-files/updatedNopatients.txt, if it exists
	
	$ **java -cp bin PatientRecords test-files/nopatients.txt updatedNopatients.txt 5**
	
	Patient Records Program - Please choose an option.
	
	L - List patients
	U - Update patient
	A - Add patient
	Q - Quit
	
	Option: **l**
		`ID        NAME        BIRTHDATE HT  WT    T      BP`
		
		`Menu is displayed.`
			`ID        NAME     BIRTHDATE HT  WT   T      BP`
			
			`Menu is displayed.`

Test ID	Description	Expected Results	Actual Results

testAddAndListWithEmptyInputFile
 	
Author: Dr. Balik
	Delete test-files/updatedNopatients.txt, if it exists
	
	$ **java -cp bin PatientRecords test-files/nopatients.txt test-files/updatedNopatients.txt 5**
	
	`Menu is displayed`
	
	`Option: `**A**
	`Name: `**John Smith**
	`Birthdate: `**02/20/1998**
	`Height: `**76**
	`Weight: `**200**
	`Temperature: `**100.4**
	`Blood pressure: `**140/90**
	
	`Successful addition`
	
	`Patient Records Program - Please choose an option.`
	
	`L - List patients`
	`U - Update patient`
	`A - Add patient`
	`Q - Quit`
	
	`Option: `**l**
		```ID NAME BIRTHDATE HT WT T BP```
		```1001 John Smith 02/20/1998 76 200 100.40 140/90```	

Test ID	Description	Expected Results	

testUpdatePatientInvalidId
 	
Author: Riya Gunda
	Delete test-files/exp_updatedNewpatients.txt
	
	$ java -cp bin PatientRecords test-files/newpatients.txt test-files/exp_updatedNewpatients.txt 5
	
	Menu is displayed
	
	`Option: u`
	`Patient id: 5001`
		`Invalid id`	`Invalid id`

testUpdatePatientNonintegerWeight Author: Riya Gunda	Delete test-files/exp_updatedNewpatients.txt **$ java -cp bin PatientRecords test-files/newpatients.txt test-files/exp_updatedNewpatients.txt 5** Menu is displayed Option: u Patient id: 1001 Height: 165 Weight: 123.48	`Invalid value`	`Invalid value`
testAddPatientNondoubleTemperature Author: Riya Gunda	Delete test-files/exp_updatedNewpatients.txt **$ java -cp bin PatientRecords test-files/newpatients.txt test-files/exp_updatedNewpatients.txt 5** Menu is displayed Option: a Name: Riya Gunda Birthdate: 05/05/2005 Height: 165 Weight: 123	`Invalid value`	`Invalid value`

	Temperature: rgr		
testAddPatientNoRoomForNewPatient Author: Riya Gunda	Delete test-files/exp_updatedNewpatients.txt **$ java -cp bin PatientRecords test-files/newpatients.txt test-files/exp_updatedNewpatients.txt 5** Menu is displayed `Option: a`	`Cannot add new patient`	`Cannot add new patient`
testSuccessfulUpdateAndAdd Author: Riya Gunda	Delete test-files/exp_updatedNewpatients.txt **$ java -cp bin PatientRecords test-files/newpatients.txt test-files/exp_updatedNewpatients.txt 5** Menu is displayed Option: u Patient id: 1002 Height: 165 Weight: 123 Temperature: 98.4 Blood pressure: 128/80 Successful update Menu is displayed Option: a Name: Saanvi Gunda Birthdate: 06/26/2008 Height: 167 Weight: 105 Temperature: 99 Blood pressure: 120/80	`updatedNewpatients.txt is the same as exp_updatedNewpatients.txt`	`updatedNewpatients.txt is the same as exp_updatedNewpatients.txt`

	Successful addition
	
	Menu is displayed
	
	`Option: q`
	`Program exits`		

Test ID	**Description**	**Expected Results**	**Actual Results**
testInvalidInputMissing ValueOnLine Author: Riya Gunda	Delete test-files/output.txt, if it exists **$ java -cp bin PatientRecords test-files/missingValueOnLine.txt test-files/output.txt 5**	`Invalid input file`	`Invalid input file`
testInvalidInputExtraVa lueOnLine Author: Riya Gunda	Delete test-files/output.txt, if it exists **$ java -cp bin PatientRecords test-files/extraValueOnLine.txt test-files/output.txt 5**	`Invalid input file`	`Invalid input file`
testInvalidInputNonint egerHeight Author: Riya Gunda	Delete test-files/output.txt, if it exists **$ java -cp bin PatientRecords test-files/nonintegerHeight.txt test-files/output.txt 5**	`Invalid input file`	`Invalid input file`
testInvalidInputInvalidI d Author: Riya Gunda	Delete test-files/output.txt, if it exists **$ java -cp bin PatientRecords test-files/invalidId.txt test-files/output.txt 5**	`Invalid input file`	`Invalid input file`
testInvalidInputTwoLin esWithId1002 Author: Riya Gunda	Delete test-files/output.txt, if it exists **$ java -cp bin PatientRecords test-files/twoLinesWithId1002.txt test-files/output.txt 5**	`Invalid input file`	`Invalid input file`