SLIDING PUZZLE GAME APPLICATION

TEST PLAN *TEMPLATE* & TESTCASES)

Version 1.0

07/15/2017

VERSION HISTORY

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	*Round Rock team*	*07/25/17*			Test Plan Template draft
2.0	*Round Rock team*	*08/2/17*			Updated test cases
3.0	*Round Rock team*	*08/9/17*			Updated test case screenshots

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1 INTRODUCTION

1.1 PURPOSE OF THE TEST PLAN TEMPLATE DOCUMENT

The Test Plan Template document documents and tracks the necessary information required to effectively define the approach to be used in the testing of end product. This document is created during the Planning Phase of the project and is leveraged when building test cases.

2 COMPATIBILITY TESTING

2.1 ITEMS TO BE TESTED / NOT TESTED

Item to Test	Test Description	Test Date	Responsibility
execute game in laptop	execute game in laptop with windows 10	8/2/2017	IT Team
Execute game in mobile	Execute game in mobile with windows operating system 10	8/2/2017	IT Team

2.2 TEST APPROACH(S)

By executing the compatibility test cases we validate that application can be deployed and played in both mobile and laptops.

2.3 TEST PASS / FAIL CRITERIA

Success criteria: User should successfully play game in both mobile and desktop editions of windows operating systems.

Fail criteria: If user is unable to play any of the functionality described in SRS, the test deemed as failed.

2.4 TEST ENTRY / EXIT CRITERIA

Entry criteria: Deploy the application, complete the registration and play the game.

Exit criteria: User plays the game successfully.

3 FUNCTIONAL TESTING

3.1 TEST RISKS / ISSUES

If the system is not connected to internet, the test cases related to login and registration would fail.

3.2 ITEMS TO BE TESTED / NOT TESTED

No.	Item to Test	Test Description	Test Date	Responsibility
1	Account Registration	Validate if the user is able to complete Account registration process	8/2/2017	IT Team
2	Login	Validate if the user is able to complete Account registration process	8/2/2017	IT Team
3	Logout	Validate if the user is able to complete logout process	8/2/2017	IT Team
4	Solve	Validate Solve functionality	8/9/2017	IT Team
5	Save	Validate Save functionality	8/9/2017	IT Team
6	New Game	Validate New Game functionality	8/9/2017	IT Team
7	Allowed Steps	Check Valid/Invalid steps	8/9/2017	IT Team

3.3 TEST APPROACH

Deploy the application on the emulators before testing the application on actual device. After completion of emulator testing, game is deployed on a device and validate all scenarios again.

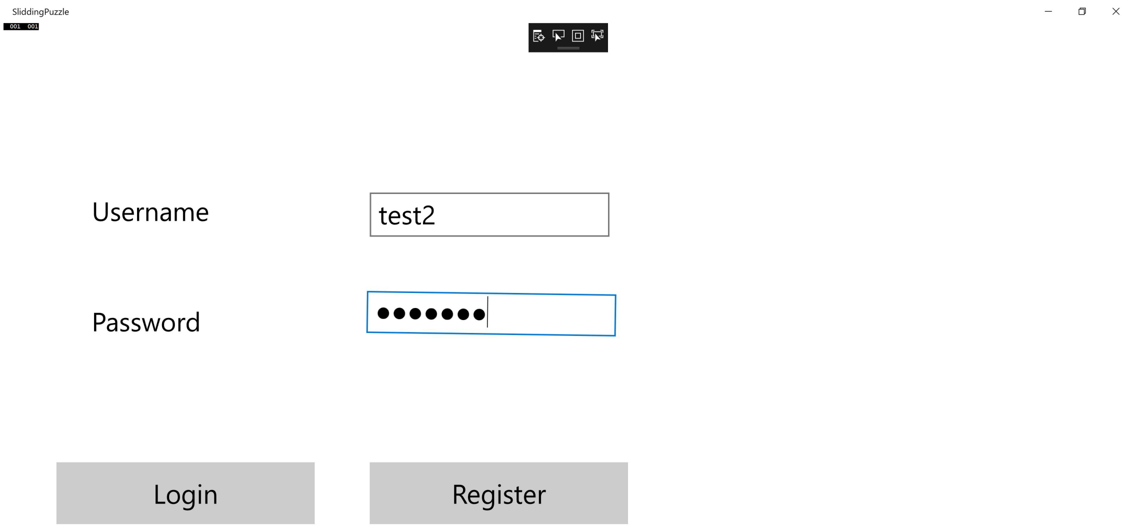
3.4 TEST CASES

3.4.1 Account Registration

Execution step	Expected output	Actual output	PASS/ FAIL
START			
Execute application to start the game	Game login screen is displayed	Login Screen displayed	Pass

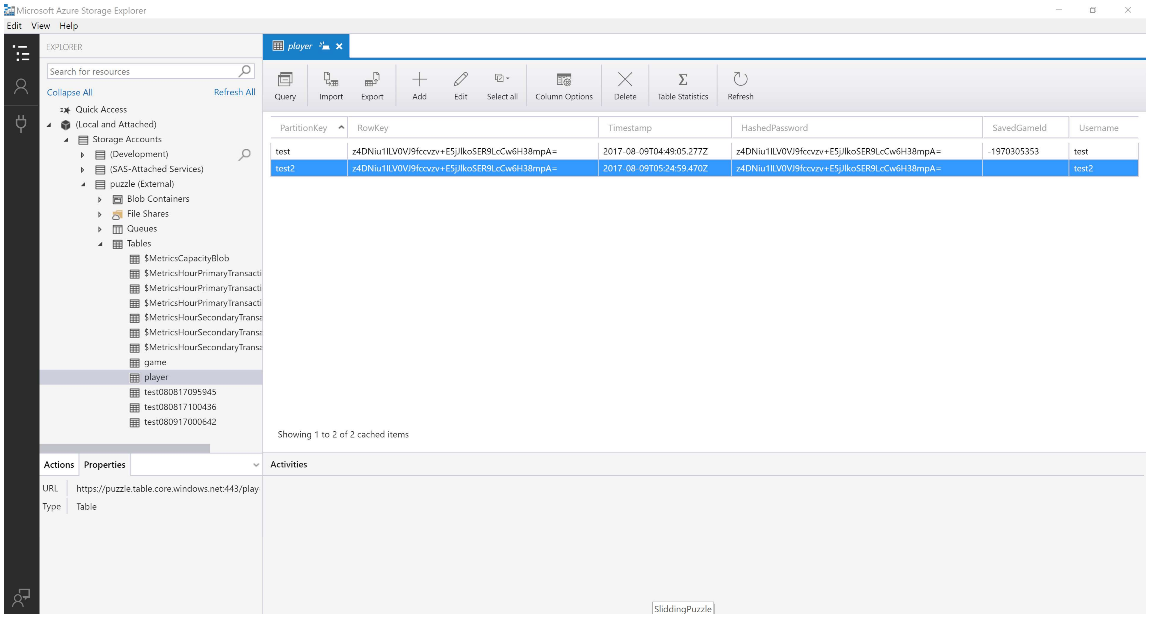
Fill in required details and hit "Register"	User is created in database and game home page is displayed	Register and move to game screen	Pass
END			

Registration Screenshots



Username: test2

Password: ●●●●●●●



PartitionKey	RowKey	Timestamp	HashedPassword	SavedGameId	Username
test	z4DNiu1ILV0VJ9fccvzv+E5jJlkoSER9LcCw6H38mpA=	2017-08-09T04:49:05.277Z	z4DNiu1ILV0VJ9fccvzv+E5jJlkoSER9LcCw6H38mpA=	-1970305353	test
test2	z4DNiu1ILV0VJ9fccvzv+E5jJlkoSER9LcCw6H38mpA=	2017-08-09T05:24:59.470Z	z4DNiu1ILV0VJ9fccvzv+E5jJlkoSER9LcCw6H38mpA=		test2

Showing 1 to 2 of 2 cached items

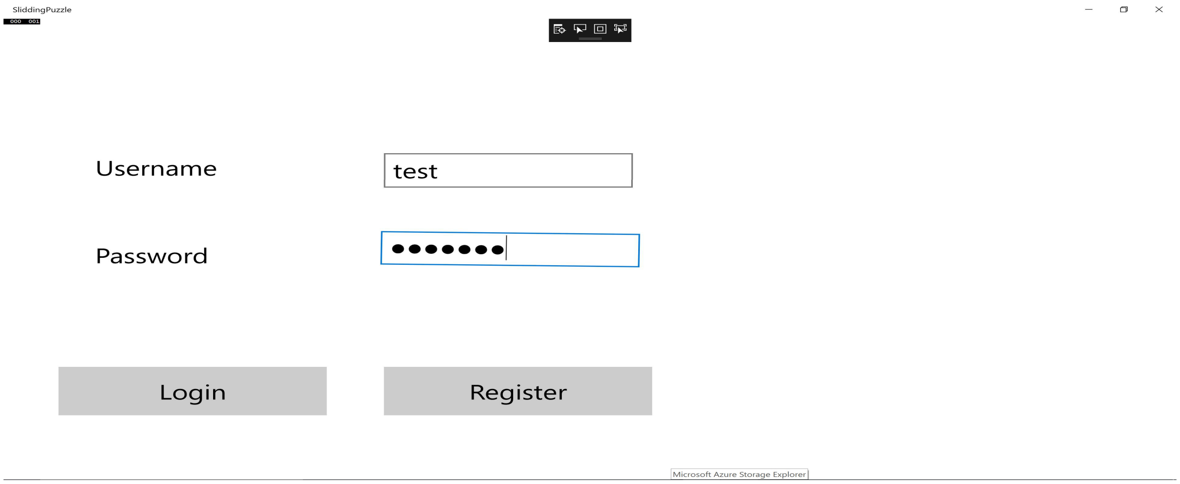
URL: https://puzzle.table.core.windows.net:443/play

Type: Table

3.4.2 Login

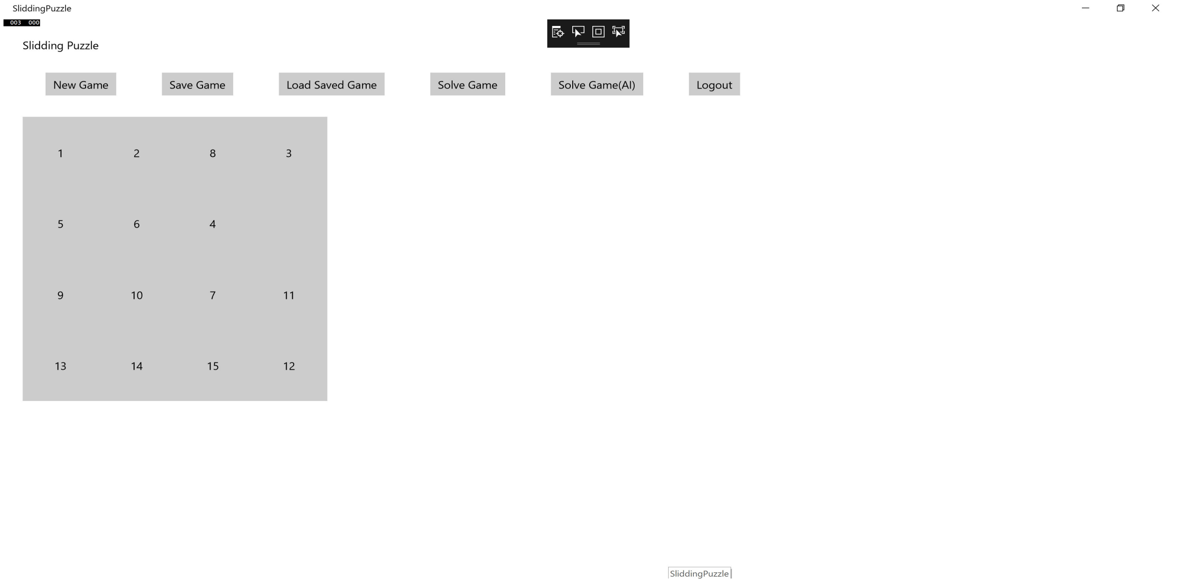
Execution step	Expected output	Actual output	PASS/ FAIL
START			
Execute application to start the game	Game login screen is displayed	Login Screen displayed	Pass
Fill in required details and hit "Login"	If existing user, previous session of the game is displayed	Go to game screen	Pass
END			

Login Screenshots



Username test

Password ●●●●●●●

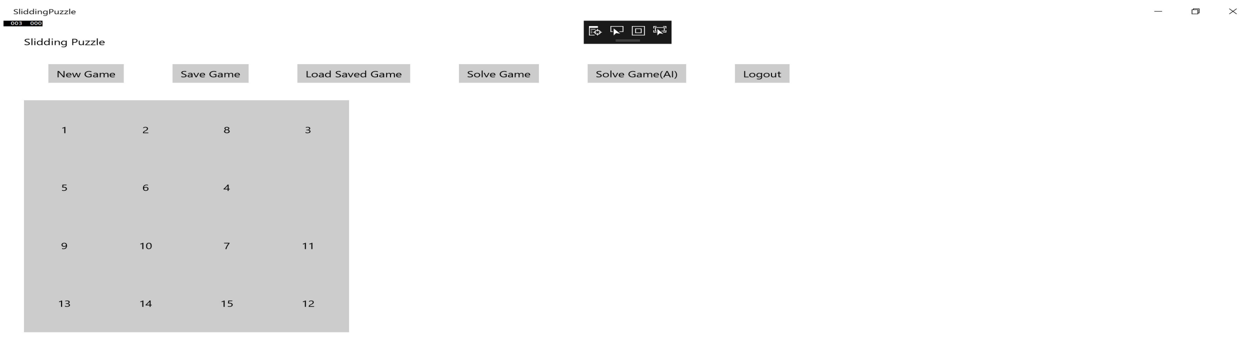


1	2	8	3
5	6	4	
9	10	7	11
13	14	15	12

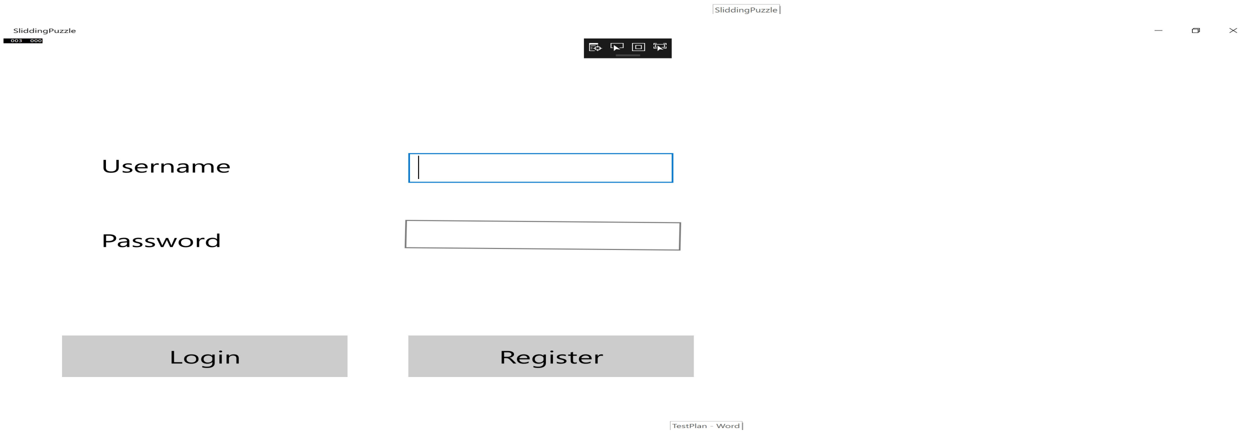
3.4.3 Logout

Execution step	**Expected output**	**Actual output**	**PASS/FAIL**
START			
Execute application to start the game	Game login screen is displayed	Login Screen displayed	Pass
complete login functionality	User is successfully logged in	Go to game screen	Pass
Click logout button	User is logged out and a login button is displayed.	Login page displayed	Pass
END			

Logout screenshots



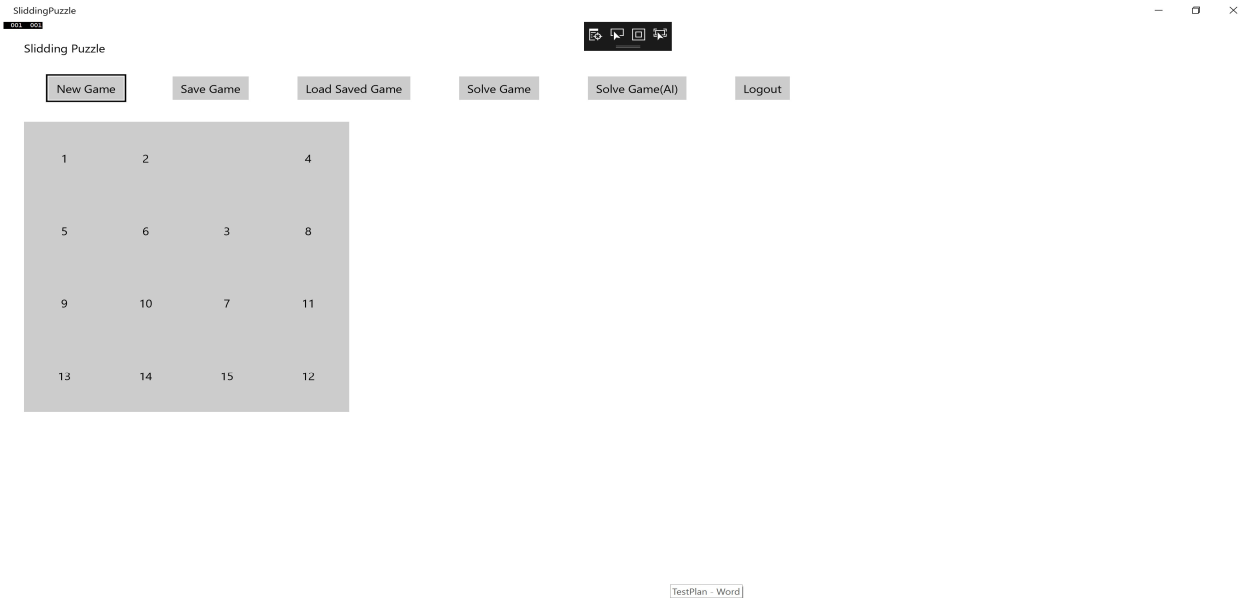
1	2	8	3
5	6	4	
9	10	7	11
13	14	15	12



3.4.4 New Game

Execution step	Expected output	Actual output	PASS/FAIL
START			
Execute application to start the game	Game login screen is displayed	Login displayed	Pass
Click New game button to start a new game	New game shall be started	New game started	Pass
END			

New Game screenshots



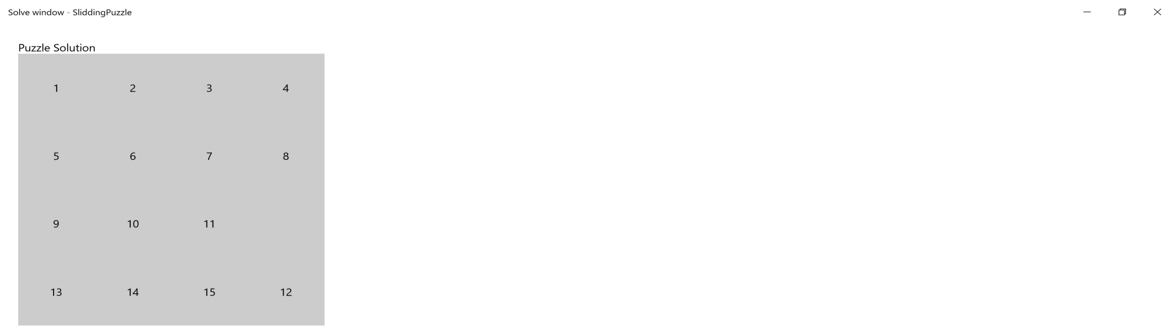
1	2		4
5	6	3	8
9	10	7	11
13	14	15	12

3.4.5 Solve

Execution step	Expected output	Actual output	PASS/FAIL
START			
Execute application to start the game	Game login screen is displayed	Login displayed	Pass
Click New game button to start a new game	New game shall be started	New game started	Pass
Play the game for few steps	User shall be able to slide the numbers based on the expected moves	Able to move	Pass

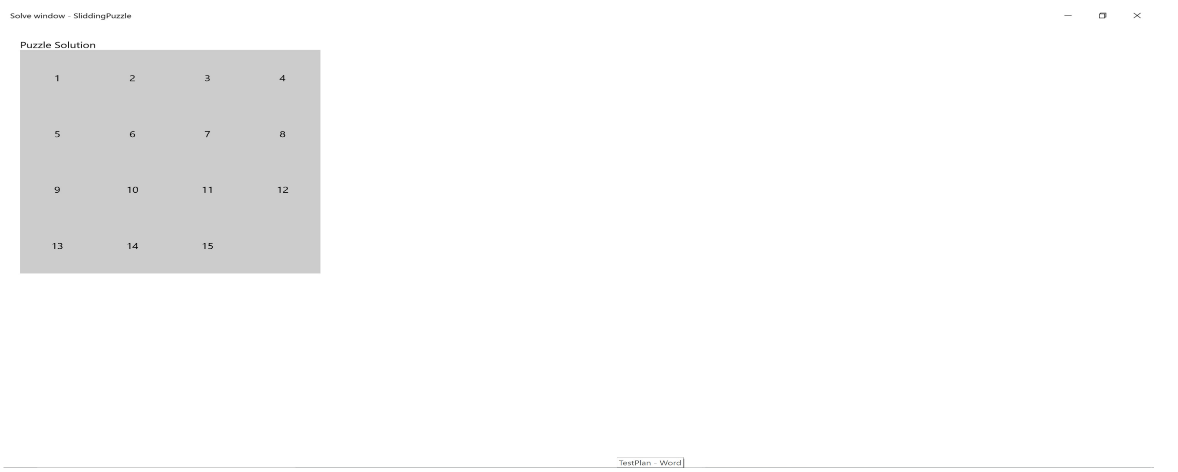
Click solve	Game would revert to initial state and numbers shall start sliding to re organize in ascending order.	Solved in pop-up screen	Pass
END			

Solve Screenshot



Puzzle Solution

1	2	3	4
5	6	7	8
9	10	11	
13	14	15	12



Puzzle Solution

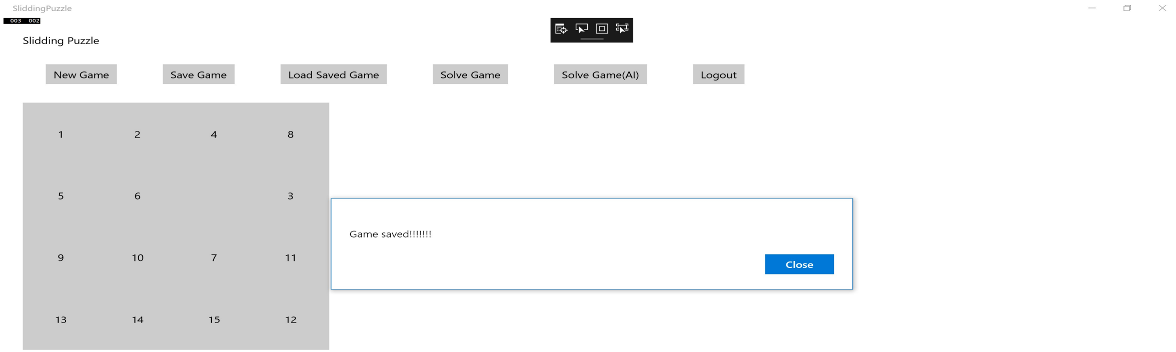
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	

3.4.6 Save

Execution step	Expected output	Actual output	PASS/FAIL
START			
Execute application to start the game	Game login screen is displayed	Login displayed	Pass

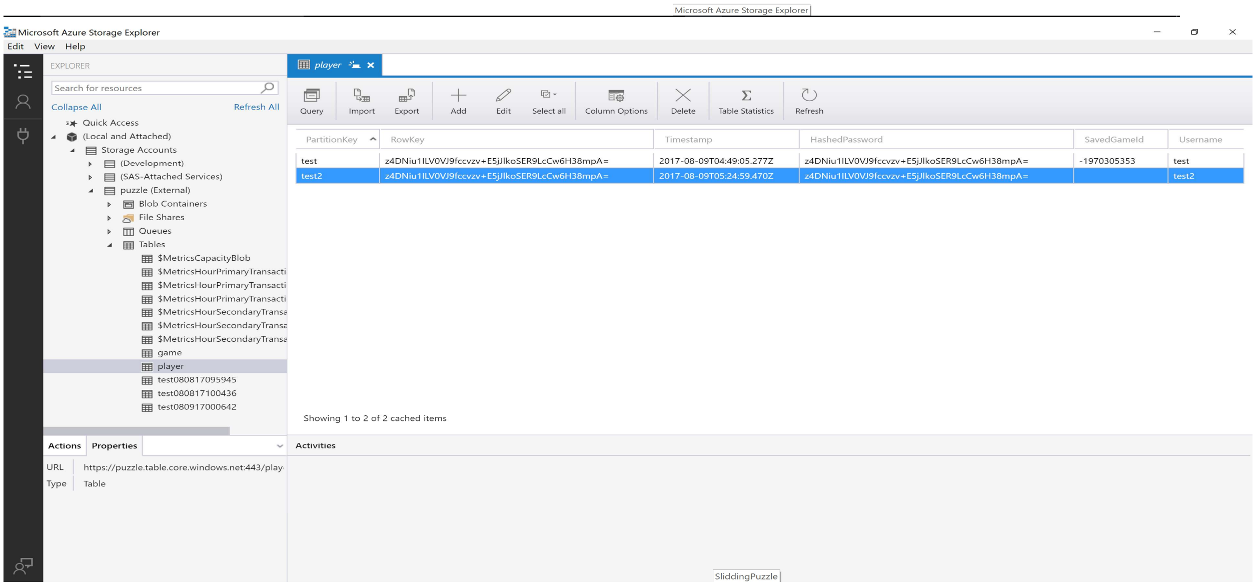
Click New game button to start a new game	New game shall be started	New game started	Pass
Play the game for few steps	User shall be able to slide the numbers based on the expected moves	Able to move	Pass
Click Save button	User game data is saved	Saved	Pass
Close the application	Application is closed	Closed app	Pass
Restart the application and login as the same user	Game shall be resumed from where left off if clicked load saved game.	Game loaded	Pass
END			

Save screenshot



1	2	4	8
5	6		3
9	10	7	11
13	14	15	12

Game saved!!!!!!!

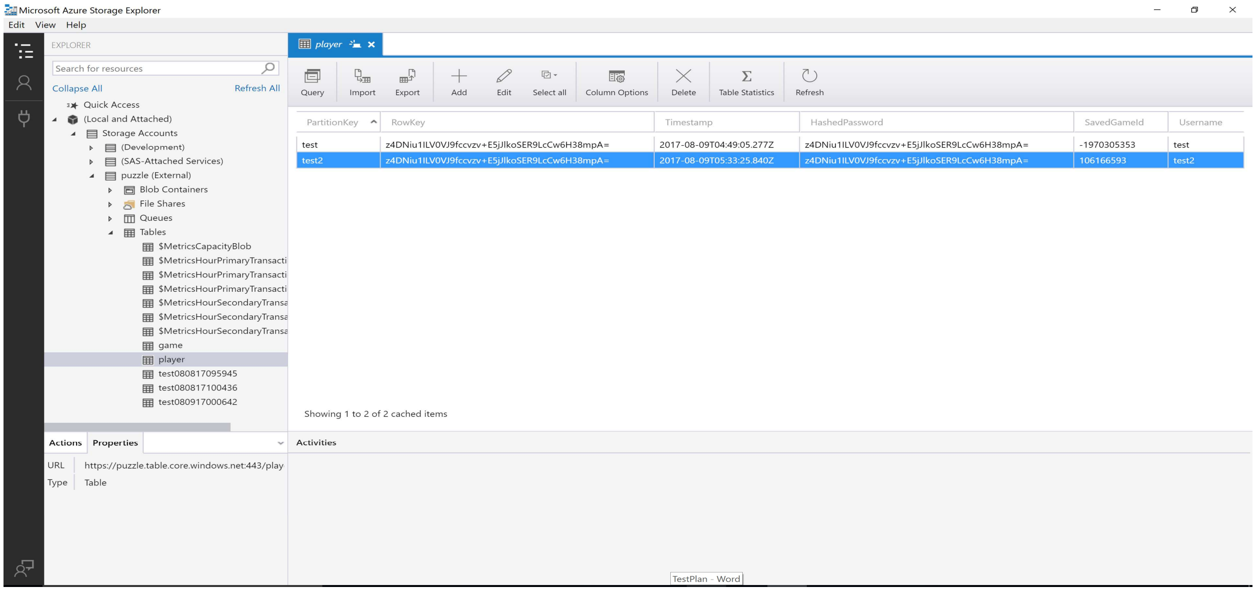


PartitionKey	RowKey	Timestamp	HashedPassword	SavedGameId	Username
test	z4DNiu1ILV0VJ9fccvzv+E5jJlkoSER9LcCw6H38mpA=	2017-08-09T04:49:05.277Z	z4DNiu1ILV0VJ9fccvzv+E5jJlkoSER9LcCw6H38mpA=	-1970305353	test
test2	z4DNiu1ILV0VJ9fccvzv+E5jJlkoSER9LcCw6H38mpA=	2017-08-09T05:24:59.470Z	z4DNiu1ILV0VJ9fccvzv+E5jJlkoSER9LcCw6H38mpA=		test2

Showing 1 to 2 of 2 cached items

URL https://puzzle.table.core.windows.net:443/play

Type Table



PartitionKey	RowKey	Timestamp	HashedPassword	SavedGameId	Username
test	z4DNiu1ILV0VJ9fccvzv+E5jJlkoSER9LcCw6H38mpA=	2017-08-09T04:49:05.277Z	z4DNiu1ILV0VJ9fccvzv+E5jJlkoSER9LcCw6H38mpA=	-1970305353	test
test2	z4DNiu1ILV0VJ9fccvzv+E5jJlkoSER9LcCw6H38mpA=	2017-08-09T05:33:25.840Z	z4DNiu1ILV0VJ9fccvzv+E5jJlkoSER9LcCw6H38mpA=	106166593	test2

Showing 1 to 2 of 2 cached items

URL https://puzzle.table.core.windows.net:443/play

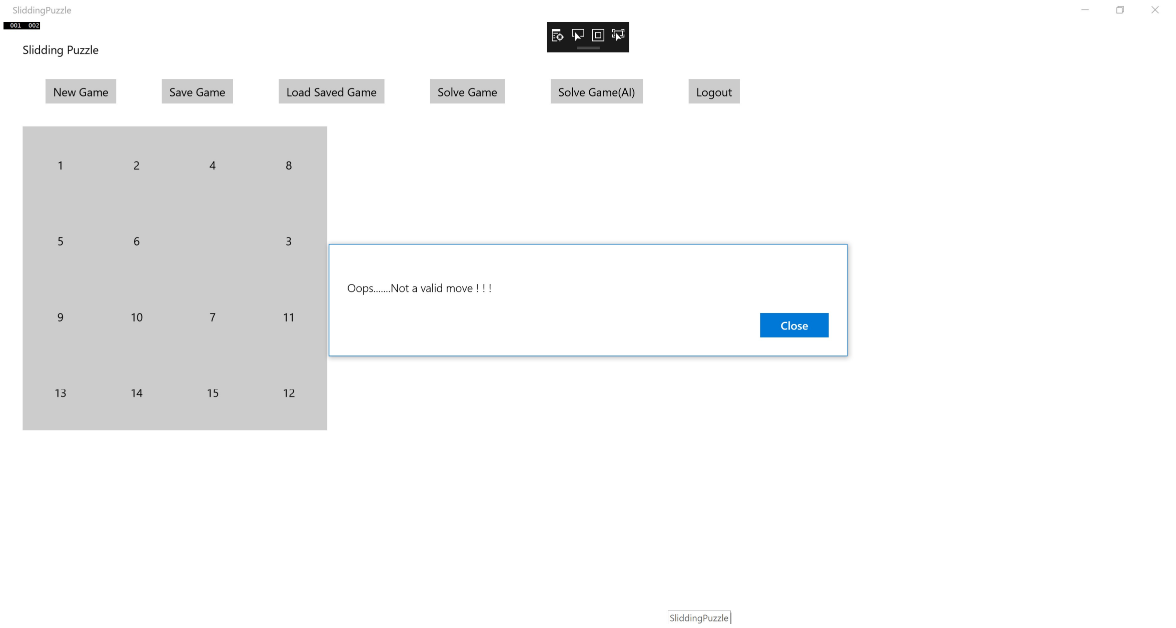
Type Table

3.4.7 Check Valid/invalid steps;

Execution step	Expected output	Actual output	PASS/FAIL
START			
Execute application to start the game	Game login screen is displayed	Login displayed	Pass
Click New game button to start a new game	New game shall be started	New game started	Pass
Play the game for few steps	User shall be able to slide the numbers based on the expected moves	Able to move	Pass
Check Valid steps: Move slide by 1 slot	The tile can slide only into adjacent empty slot	Invalid move intimation	Pass
Check invalid steps Move tile into a non empty slot	The tile cannot slide into non empty slot	Invalid move intimation	Pass
Check invalid steps Move tile into an empty slot whose	The tile cannot slide into a slot which is not adjascent.	Invalid move intissmation	Pass

distance is more than one slot.			
END			

Error Message screenshot



Oops.......Not a valid move ! ! !

4 UNIT TESTING

4.1 TEST RISKS / ISSUES

View cannot be tested. Only model and view model can be tested.

4.2 ITEMS TO BE TESTED / NOT TESTED

All model classes must be tested. Unit test goal is 75 % coverage using Resharper testing tool.

4.3 TEST REGULATORY / MANDATE CRITERIA

Unit test goal is 75 % coverage.

4.4 TEST PASS / FAIL CRITERIA

All assert statement must pass or return true for a test to pass.

4.5 TEST DELIVERABLES

Test project with unit test case code, screenshot of tests passing and coverage results will be the deliverables.

5 USER ACCEPTANCE TESTING

5.1 ITEMS TO BE TESTED

Item to Test	Test Description	Test Date	Responsibility
New User is able to register	Validate New user registration process		
User can resume from a saved state	Validate if user can resume a previous game		
User interface has the expected functionality as displayed in SRS.	UI is as shown in the diagram in SRS document		
User can solve a puzzle	Validate if user can solve the puzzle		
Tiles movement	Tiles are moved only to adjacent empty slots		

6 CONCLUSION:

The test cases mentioned in this document ensures the application developed is thoroughly tested and validated against expected outputs.