SOFTWARE ENGINEERING INDIVIDUAL PROJECT

Tiles

- SAURABH PATHAK

QUICK RECAP OF THE GAME

- The game will present a 2X2 matrix of tiles.
- Each tile will have a unique number or a pattern hidden behind it.
- Each unique number/pattern exists twice in the matrix.
- Once the player taps a tile, it flips and shows the pattern behind it.
- The player has to match (by tapping consecutively) two tiles with same number/pattern hidden behind them.
- If you match two tiles with different pattern, both the tiles will rotate and hide the pattern behind them.

CORE ELEMENTS

- 2D matrix of tiles
- Timer as per level
- Patterns which will get complicated as per level (dropped)
- Retaining last state of the game

PLANNING AND MANAGEMENT

• Click here for complete Gantt chart

	1	Name	Duration	Start	Finish	Predecessors	Resources
1		☐ Sprint 1 - Deciding a Game Topic	19d	09/26/2016	10/20/2016		
2	<u> </u>	Research on previous built games	3d	09/26/2016	09/28/2016		
3	<u> </u>	Coming up with game ideas	3d	09/29/2016	10/03/2016	2	
4	B	Finalizing the Game	3d	10/04/2016	10/06/2016	3	
5	B	Week 4 - Presentation	2d	10/07/2016	10/10/2016	4	
6	*	Understanding Technical Requirements	4d	10/11/2016	10/14/2016	5	
7	*	Learning about popular Game building Frameworks	2d	10/17/2016	10/18/2016	6	
8	*	Finalizing technical tools which will be used	2d	10/19/2016	10/20/2016	7	
9		☐ Sprint 2 - Setting Up the Project	6d	10/21/2016	10/28/2016		
10	**	Install Java	1d	10/21/2016	10/21/2016		
11	**	Installing Android Studio	1d	10/24/2016	10/24/2016	10	
12	3	Creating a new project with blank activity	1d	10/25/2016	10/25/2016	11	
13	**	Setting up Virtual device	1d	10/26/2016	10/26/2016	12	
14	**	Configuring drivers for connected android dveice	1d	10/27/2016	10/27/2016	13	
15	**	Running the project	1d	10/28/2016	10/28/2016	14	
16		☐ Sprint 3 - Development	25d	10/31/2016	12/02/2016		
17	3	Create Game Page	3d	10/31/2016	11/02/2016		
18		Create Grids	2d	11/03/2016	11/04/2016	17	
19		Add Timer	1d	11/07/2016	11/07/2016	18	
20		Add Click Count functionality	3d	11/08/2016	11/10/2016	19	
21		Add Animation on clicked tiles	1d	11/11/2016	11/11/2016	20	
22		Implement Corresponding click functionality	4d	11/14/2016	11/17/2016	21	
23		Create Start Page	1d	11/18/2016	11/18/2016	22	
24		Calculate and show scores	2d	11/21/2016	11/22/2016	23	
25		Retain game status on close	3d	11/23/2016	11/25/2016	24	
26		User customized grid option	2d	11/28/2016	11/29/2016	25	
27		UI Improvements	3d	11/30/2016	12/02/2016	26	
28		☐ Sprint 4 - QA and Stabilization	3d	12/05/2016	12/07/2016		
29	<u></u>	QA and bug logging	1d	12/05/2016	12/05/2016		
30	<u> </u>	Stabilization - Fixing Issues	2d	12/06/2016	12/07/2016	29	
31		☐ Sprint 5 - Deployment	2d	12/08/2016	12/09/2016		
32	<u></u>	Deploy on App store	2d	12/08/2016	12/09/2016		

PROGRESS SO FAR

- The Game works!!!
- A static 2D matrix of 20 tiles has been implemented.
- Counter for number of clicks works as per requirements.
- The timer records the time starting with the first click.

PROJECT STATUS AS PER GANTT CHART

- For now the project is a week delayed.
- Pending Enhancements are
 - User specific grid size.
 - User Customized Grid option

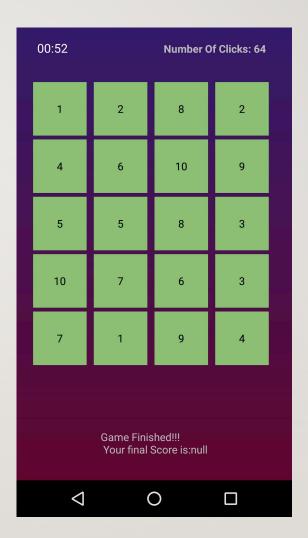
USER INTERFACE OF THE GAME

• Initial screen after starting game



USER INTERFACE OF THE GAME

• Game completion screen



PENDING ISSUES

- Storing clicks and chronometer time on game discard.
- Adding UI for grid size selector.
- Resume Game button should activate on press of back button.
- Add some instructions for playing the game.

JUNIT TEST CASES

- isArrayMatching for generating tile grid values.
- isListUnlocked for checking whether complete list is unlocked or not.
- isListLocked for checking whether complete list is unlocked or not.
- isJsonValid whether json created for storing in sharedpreferences is valid.

THANK YOU!