# COMP1110-ASS2-WED17I

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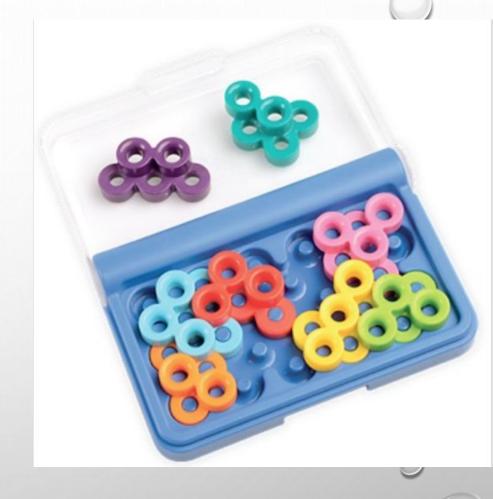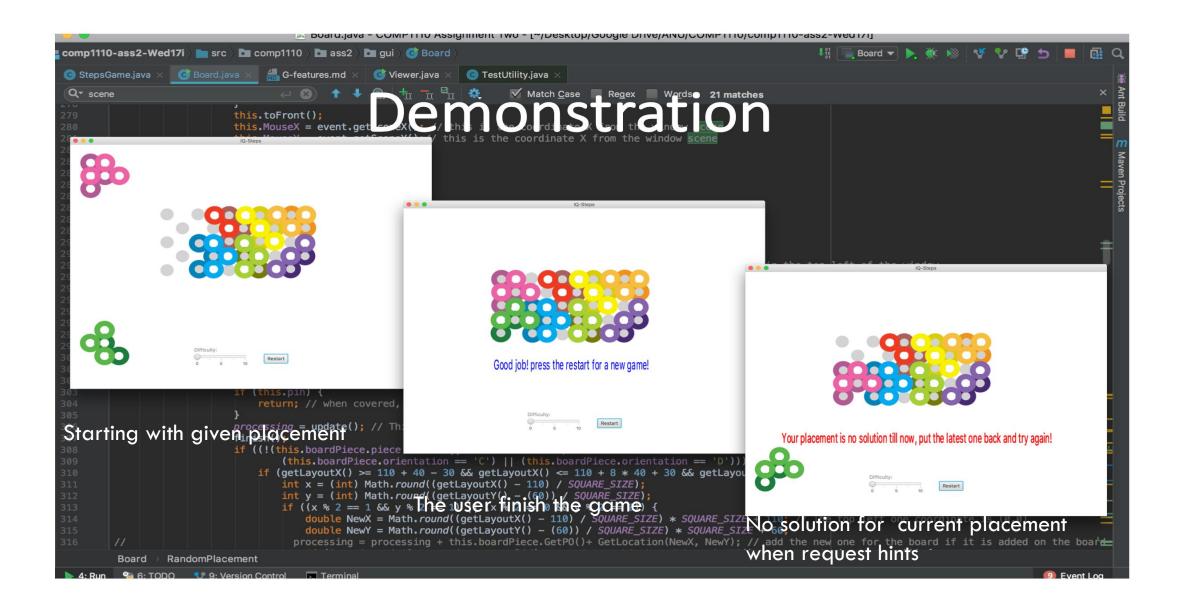
# THE IQ-STEP GAME

- DESIGN BY USING SKELETON

- THE USERS CAN PLAY WITH GIVEN STARTING PLACEMENT

- THREE CLASS FILE:

- VIEWER: BASIC BOARD AND PIECE CAN BE VIEWED

- STEPSGAME: DEFINED METHOD HANDING THE STRING.

- BOARD: IMPLEMENTATION OF UI

# Demonstration

Starting with given placement

The user finish the game

Good job! press the restart for a new game!

Your placement is no solution till now, put the latest one back and try again!

No solution for current placement when request hints

# APPROACH TASK 2 , TASK 3

- SIMPLE OPERATION ON THE STRING.

- EACH PIECE IS A LENGTH 3 STRING.

- CHECK THE STRING WITH SHAPE, ORIENTATION AND LOCATION.

# APPROACH TO TASK 4, 5, 6

- DRAW THE GRAPH AND ADD TO ROOT

- THE IDEA OF TASK 5 IS FROM ASS1, WHEN THE UPPER LAYER IS OCCUPIED, THE NEIGHBORING BOTTOM LAYER CAN NOT BE USED

- TASK 6 GIVES THE NEXT VIABLE PIECE WHEN GIVEN UNORDERED PLACEMENT

- THE CORE OF TASK 6 IS RECURSION. CHECK ALL THE CORRECT NEXT VIABLE PIECES.

# APPROACH AND IMPLEMENTATION OF TASK7 AND 8

- THE BASIC BOARD IS DRAWN IN TASK 7

- INNER CLASS PIECES IS CREATED AND USED IN JAVAFX

- CONSTRAINTS ON THE PIECES: COVERED PIECES CAN NOT BE DRAGGED OUT AND THE ALREADY OCCUPIED LOCATION CAN NOT BE PLACED INTO

- TASK 8 IS GENERATE THE STARTING PLACEMENT WHEN GAME IS STARTED

# IMPLEMENTATION AND APPROACH OF TASK9

- THREE CORE THINGS:

- RECURSION: GIVEN STARTING PLACEMENT, THE PROGRAM WILL EXECUTE UNTIL EIGHT PIECES IS PLACED.

- USE OF THE TASK 5: CHECK WHETHER THE PLACEMENT IS VALID ON THE BOARD AFTER ADDING ONE PLACEMENT. IF NOT, DELETE.

- LOCATION: WHEN PIECES IS PLACED, THE 3*3 LOCATION CAN NOT BE USED AGAIN.

# IMPLEMENTATION OF TASK 10 AND 11, GAME JAR

- HINTS: FOR GIVEN PLACEMENT, PRESS SLASH, THE HINTS WILL BE GIVEN. IF PLACEMENT HAS NOT HINTS, IT MEANS THE USER PLAYED THE PIECES INCORRECTLY AND THE GAME WILL SUGGEST THE PLAYER PUT ONE BACK.

- TASK11: THERE FIVE DIFFICULTY LEVEL, MOST DIFFICULT ONLY GIVE 2 STARTING PIECES. THE EASIEST GIVE 6 STARTING PIECES.

- EXECUTE THE GAME.JAR, THE GAME ALSO CAN BE PLAYED.

# ADDED EXTRA FUNCTION

- PRESS Q, THE GAME WILL EXIT.

- PRESS M, THE MUSIC WILL BE PLAYED OR STOPPED.

# SUMMARY

- THE GAME IS DONE BY TASK 2 TO TASK 11

- THE STARTING PLACEMENT AND HINTS ARE GIVEN TO MAKE THE GAME EASIER.

- USER CAN VIEW THE GAME BY EXECUTING THE VIEWER.

- HAVE FUN WITH THE GAME!

- EXTRA FUNCTION: EXIT THE GAME AND PLAY MUSIC