math24game

Wentao Jiang | December 2, 2019

BaseActivity

+switchToPage(Class):void
+onClickSettingBtn(ImageView):void
+goToResult(Class, boolean):void

AppCompatActivity

GameManager

getScore():int
isGameOver:boolean
checkNextLevel:boolean

Math24Menu

-handler:Handler
-current:Activity
+scoreboard:Scoreboard
-FILENAME:string = "Math24Scores.ser"
-currentPlayer:User
runnable:Runnable

#onCreate(Bundle):void
+run():void
-setButtons():void
+setScoreboardBtn():void
+setQuitBtn():void
+setNewGameBtn():void
+setIntroBtn():void
+onResume():void

Math24Activity

-gameTimer:GameTimer
-equal:Button
-clear,:Button
-leftBracket ,rightBracket ,nextBtn:Button
-mathExpressions, result, message:Textview
-textLive, scoreText, level:Textview
-nums, operatorBtns:Buttons[]
-score:int
-presenter: Math24Presentre
-FILENAME:string = "Math24Score.ser"
-currentPlayer:User

#onCreate(Bundle):void
+setPauseButton(Button, GameTimer):void
disableBtns:void
enableBtns:void
getNextBtn():Button
enableBracket(boolean, boolean):void
-setOnClickNums():void
-setOnClickBrackets():void
-setOnClickOperations():void
+getNums():Button[]
-backToMain():void
+disableAll():void
+clearText():void
+enableAll():void
-checkNumDisabled():boolean

Math24IntroActivity

-back: Button
-intoTitle, introBody:TextView

#onCreate(Bundle
savedInstanceState): void
+onClick(VIew view): void

Math24ScoreboardActivity

currentPlayer:User

#onCreate(Bundle):void
-addReturnButtonListener():void
-switchToStarting():

Math24ScoreboardActivity

currentPlayer:User

#onCreate(Bundle):void
-addReturnButtonListner():void
-switchToStarting():void

Math24Manager

-score:int
-gameOver:boolean
-questionBank:QuestionBank
-correctAnswer:boolean
-lives:int

+MathManager()
+getQuestion():int[]
+isGameOver():int[]
+isGameOver():boolean
+isCorrectAnswer():boolean
+checkNextLevel():boolean
+getLives():int
+calculate(String):int
+addScore():void
getScore():int
checkToAddScore(Scoreboard, Strin, int)

QuestionBank

-level1:int[][]
l-evel2:int[][]

QuestionBank()
getRandomQ(boolean):int[]

Math24Presenter

-mathManager:Math24Manager
-mathView:Math24Activity
-observers:List<MyObserver>

+Math24Presenter(Math24Manager, Math24Activity)
+onStart():void
+calculateResult(String):void
-checkCurrentResult():void
+onDestroy():void
+Math24Manager():Math24Manager
+register(Myobserver):void
+notifyObservers():void

<<Interface>>Iterator

Calculator

-isRightFormat: boolean

+getResult(String formula): double
-doAnalysis(String formula): double
-doCalculation(String formula):
double

<<Interface>>GameMenu

~setQuitBtn(): void
~setNewGameBtn(): void
~setIntroBtn(): void
~setScoreboardBtn():

<<Interface>>GameView

~updateScore(int): void

<<Interface>>View.OnClickListener

<<Intreface>>GameController

~getGameManager():
GameManager

<<Intreface>>MySubject

~register(MyObserver): void
~notifyObserver(): void