Class Diagram for **OOP Project**

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board

- max xcoord:const int = 700

- max_ycoord:const int = 500

- row:const int = 10

- col:const int = 10

- score:int = 0

- high_score:int = 0

- high_score_2:int = 0

- high_score_3:int = 0

- high_score_4:int = 0

-level:int = 1

- timetrial:bool = 0

- timeleft:int = 0

- lives:int = 3

- required score:int = level * 500

- progressbar:double = 0.0

- playername:string

- actualscore:int = 0

- actualreqscore:int = level * 500

- hint:bool = 0

- paused:bool = 0

+ grid:vector<vector<int>>

+ grid2:vector<vector<int>>

+ board()

+ grid2togrid():void

+ gridtogrid2():void

+ draw_grid():void

+ getscore():int

+ setscore(int):void

+ gethigh_score():int

+ sethigh score(int):void

+ gethigh_score2():int

+ sethigh_score2(int):void

+ gethigh_score3():int

+ sethigh score3(int):void

+ gethigh_score4():int + sethigh score4(int):void

+ getplayername():string

+ setplayername():void

+ getlevel():int

+ setlevel(int):void

+ getlives():int + setlives(int):void

+ convert_score_to_string():string

+convert_required_score_to_string():string

+ convert_level_to_string():string

+ convert_highscore_to_string():string

+ draw_lives():void + check for matches():bool

+ populate_grid_after_match():void

+ getrequiredscore():int + setrequiredscore():void

+ check_if_highscore():void

+ gethighscores():void + setprogressbar():void

+ drawprogressbar():void

+ randomizegrid():void

+ setactualscore(int):void

+ setactualreqscore(int):void

+ getrow():int

+ getcol():int

+ gethint():bool

+ sethint(bool):void

+ getpaused():bool

+ setpaused(bool):void

+ movegemsdown():void

+ playerprofile():void + gettimetrial():bool

+ settimetrial(bool):void

+ decrementprogressbar():void

+ decrementlives():void

+ getactualscore():int

+ gamestate():void

menu

- state:int = 0

+ setstate(int):void

+ getstate():int

+ drawmenu():void

+ settings():void

+ howtoplay():void

+ highscores():void

+ playerprofile():void + levels():void

+ levelmodes():void

+ soundmusic():void