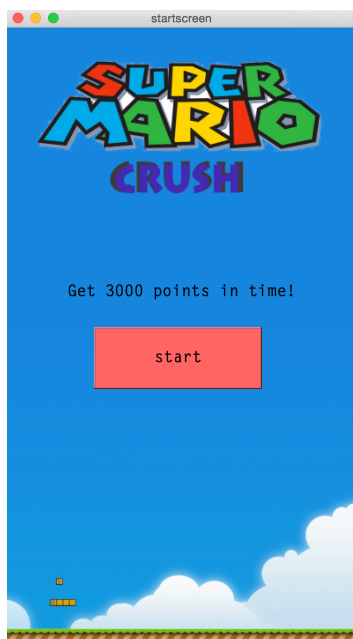# #STUDENT ID : F74036467
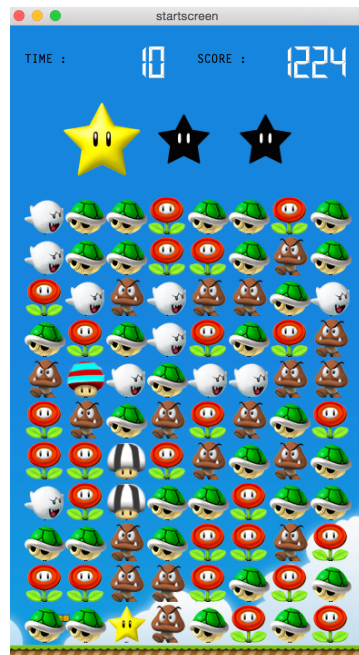# #REPROT OF PROJECT - 3

Compile and Execute :

Build and run it Qt creator.

Screenshot :

⇧star screen ⇧play screen ⇧end screen
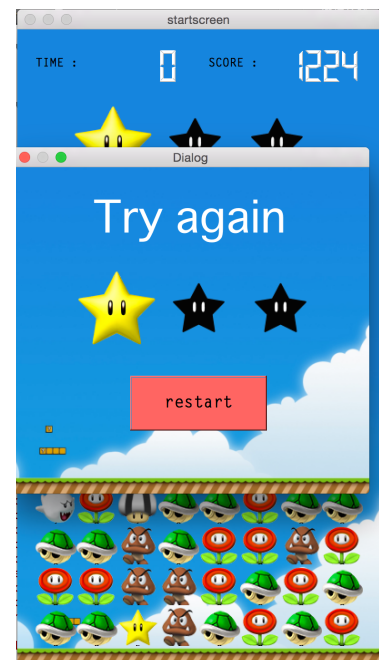
Features of the program :

1. The countdown for time.
2. A scoreboard.
3. A star will appear when you got every 1000 point .
4. Four fundamental stone, white ghost, red flower, green turtle and brown mushroom.
5. Special mushroom could be distinguished by the color except for the white/black line or dot on the mushroom.(Like place where the arrow point)
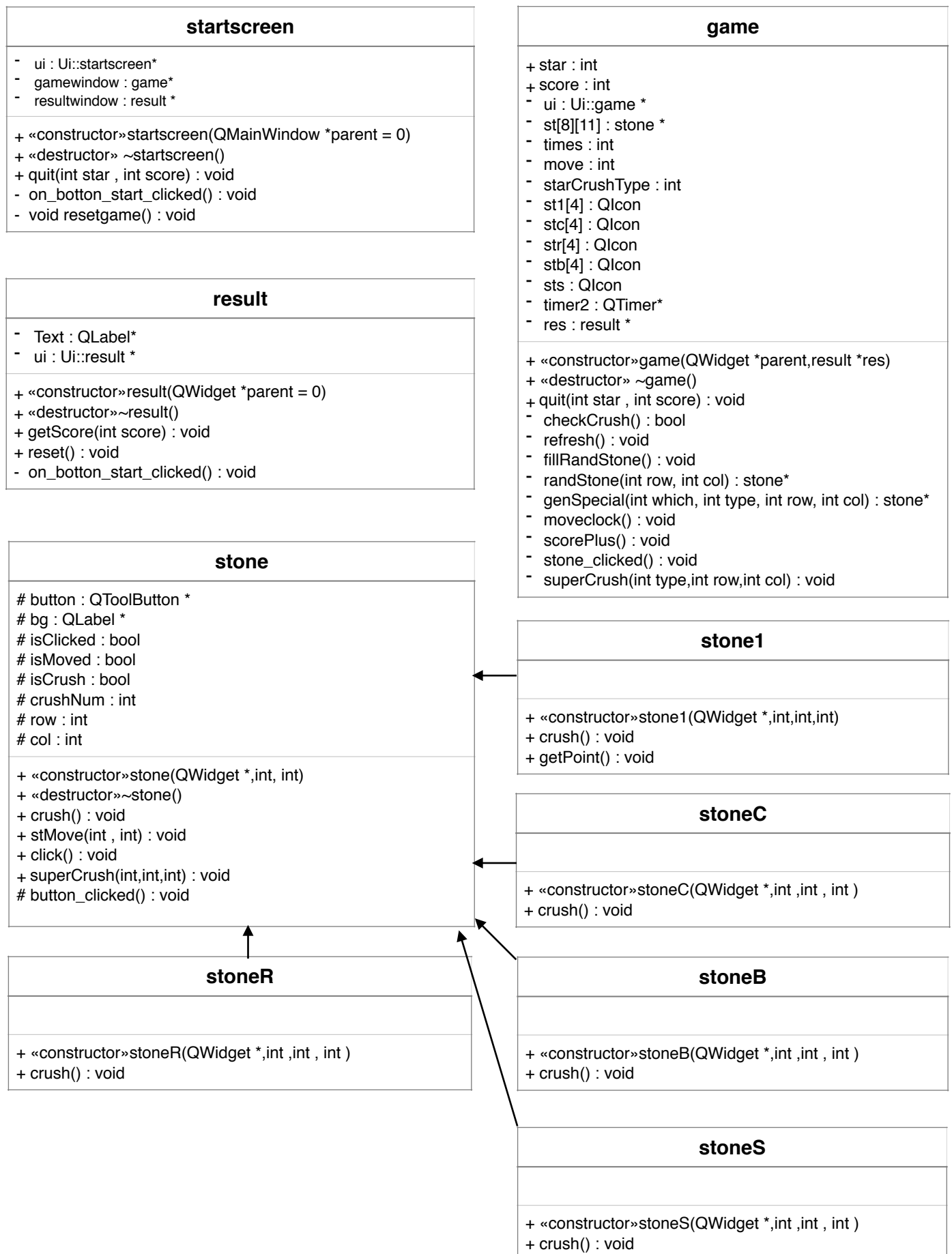
 column crush for

 square crush for

 line crush for

UML class diagram :

startscreen

- ui : Ui::startscreen*
- gamewindow : game*
- resultwindow : result *

- + «constructor»startscreen(QMainWindow *parent = 0)
- + «destructor» ~startscreen()
- + quit(int star , int score) : void
- - on_botton_start_clicked() : void
- - void resetgame() : void

result

- Text : QLabel*
- ui : Ui::result *

- + «constructor»result(QWidget *parent = 0)
- + «destructor»~result()
- + getScore(int score) : void
- + reset() : void
- - on_botton_start_clicked() : void

stone

\# button : QToolButton *
\# bg : QLabel *
\# isClicked : bool
\# isMoved : bool
\# isCrush : bool
\# crushNum : int
\# row : int
\# col : int

+ «constructor»stone(QWidget *,int, int)
+ «destructor»~stone()
+ crush() : void
+ stMove(int , int) : void
+ click() : void
+ superCrush(int,int,int) : void
\# button_clicked() : void

stoneR

+ «constructor»stoneR(QWidget *,int ,int , int)
+ crush() : void

game

+ star : int
+ score : int
- ui : Ui::game *
- st[8][11] : stone *
- times : int
- move : int
- starCrushType : int
- st1[4] : QIcon
- stc[4] : QIcon
- str[4] : QIcon
- stb[4] : QIcon
- sts : QIcon
- timer2 : QTimer*
- res : result *

+ «constructor»game(QWidget *parent,result *res)
+ «destructor» ~game()
+ quit(int star , int score) : void
- checkCrush() : bool
- refresh() : void
- fillRandStone() : void
- randStone(int row, int col) : stone*
- genSpecial(int which, int type, int row, int col) : stone*
- moveclock() : void
- scorePlus() : void
- stone_clicked() : void
- superCrush(int type,int row,int col) : void

stone1

+ «constructor»stone1(QWidget *,int,int,int)
+ crush() : void
+ getPoint() : void

stoneC

+ «constructor»stoneC(QWidget *,int ,int , int)
+ crush() : void

stoneB

+ «constructor»stoneB(QWidget *,int ,int , int)
+ crush() : void

stoneS

+ «constructor»stoneS(QWidget *,int ,int , int)
+ crush() : void

Other Requirements :

1. Polymorphism : The function of stone "crush()" is a virtual function, which
    works on the derived class, stone1, stoneR, stoneC, stoneB, stoneS.
2. Operator Overloading : There is a global function overloading "QLabel++"
written in result.cpp .