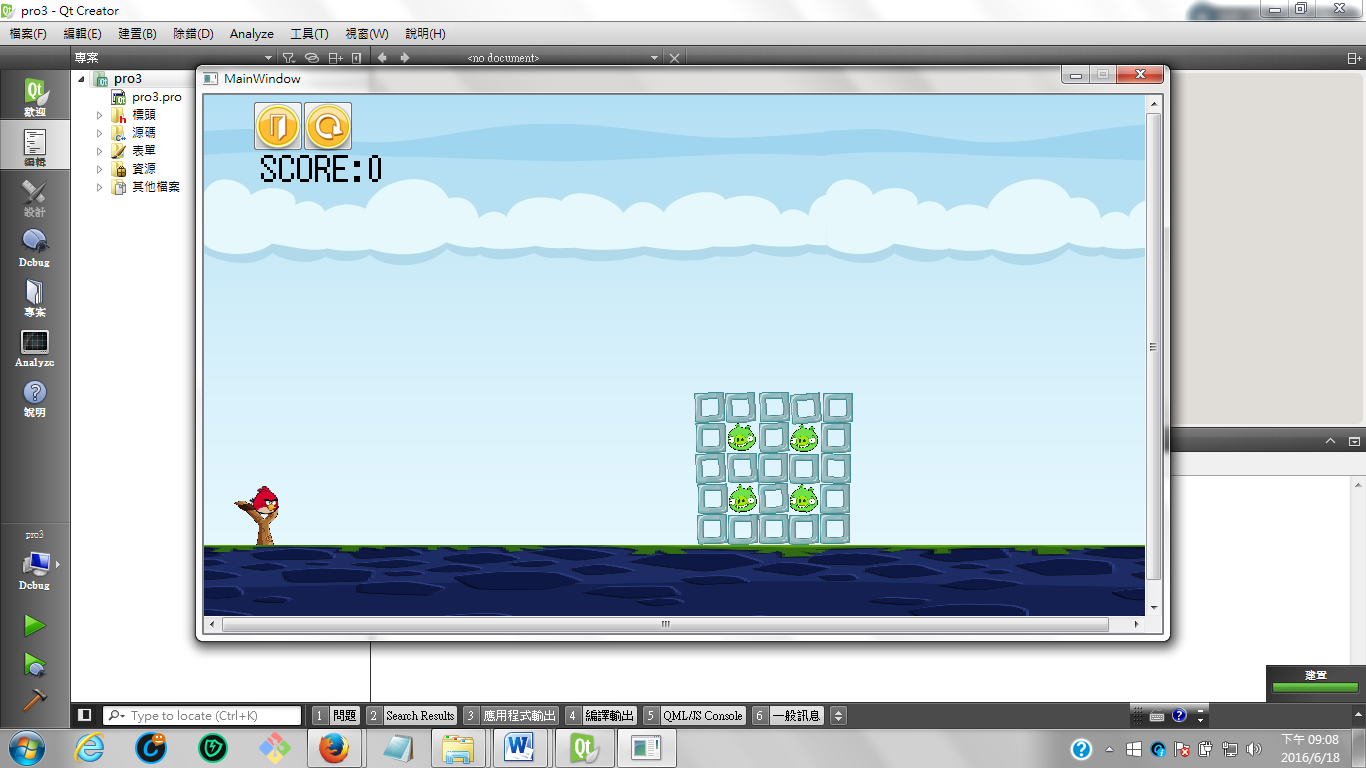
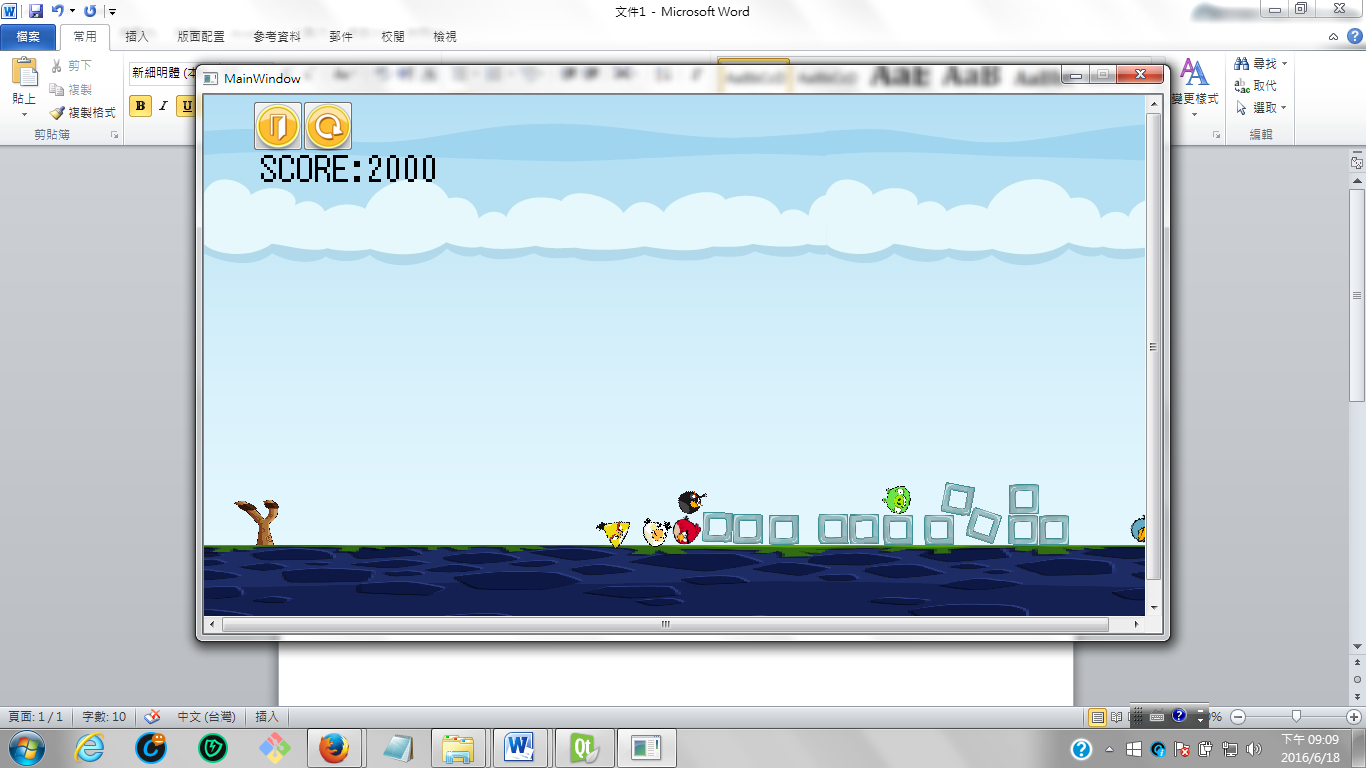
**PROJECT3 資訊108賴睿珣 f74041153**

**Screen shot**





**How to play**

1. 點擊滑鼠左鍵
2. 按定後向左下方拉
3. 放開滑鼠左鍵
4. 鳥飛出
5. 撞擊方塊的力道達到一定程度得分(一定力量豬才會消失)
6. 鳥的招式 one:加速

Two:以碰撞動量守恆形式分裂

Three:向前噴法另一隻鳥

Four:螺旋加速

**Program architecture**

**UML**

|  |
| --- |
| mainwindow |
| <<constructor>>+MainWindow(parent = 0: QWidget \*);  <<destructor>>+~MainWindow();  - ui: Ui::MainWindow \*  - scene :QGraphicsScene \*  - world b2World \*  - itemList: QList<GameItem \*>  - timer: QTimer  - start\_point: b2Vec2  - bird[5]: Bird \*  - birdie: Bird\*  - land: Land\*  - rope: Dangon \*  - enemy[4] :Enemy \*  - joint: b2MouseJoint\*  -brick[5][5] :Block \*  - count: Integer  - k\_count: Integer  - j\_count: Integer  - space\_count: Integer  - L\_count: Integer  -score:Score\*;  - button1: QPushButton\*  - button2: QPushButton\* |
| +eventFilter(QObject \*, event: QEvent \*): bool  + closeEvent(QCloseEvent \*):  +build\_a\_castle();  + quitGame();  -tick();  -QUITSLOT()  - create\_bird()  -renew\_mainwindow()  -keyPressEvent(event QKeyEvent\*)  -restart()  -clock() |

|  |
| --- |
| Score |
| <<constructor>>+Score(parent=0: QGraphicsItem\*)  - s:Integer |
| +increase()  +getscore():Interger |

|  |
| --- |
| Gameitem |
| <<constructor>>GameItem(world: b2World \*)  <<destructor>> virtual ~GameItem()  + g\_body: b2Body \*  + g\_pixmap: QGraphicsPixmapItem  # g\_size: QSizeF  # static g\_worldsize: QSizeF  # static g\_windowsize: QSizeF  # g\_world: b2World \* |
| +static setGlobalSize(worldsize: QSizeF, windowsize:QSizeF)p  + paint() |

|  |
| --- |
| land |
| <<constuctor>>+Land(x: float, y: float, w: float, h: float, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*) |

|  |
| --- |
| Dangon |
| <<constuctor>>+Dangon(x: float, y: float, w: float, h: float, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*) |

|  |
| --- |
| Block |
| <<constuctor>>+Block(x: float, y: float, w: float, h: float, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*)  +Collide() |

|  |
| --- |
| enemy |
| <<constructor>>+ Enemy (x: float, y: float, w: float, h: float, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*) |
| + temp:Integer  + collide()  +remove() |

|  |
| --- |
| Bird |
| +<<constructor>Bird(world:b2World \*)  +virtual~Bird(){}  + virtual key(){} |

|  |
| --- |
| Bird\_one |
| <<constructor>>+Bird\_one(x: float, y: float, w: float, h: float, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*);  <<destructor>>+ ~Bird\_one(){};  + key() |

|  |
| --- |
| Bird\_two |
| <<constructor>>+Bird\_two(x: float, y: float, w: float, h: float, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*);  <<destructor>>+ ~Bird\_two(){};  + key() |

|  |
| --- |
| Bird\_three |
| <<constructor>>+Bird\_three(x: float, y: float, w: float, h: float, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*);  <<destructor>>+ ~Bird\_three(){};  + key() |

|  |
| --- |
| Bird\_four |
| <<constructor>>+Bird\_four(x: float, y: float, w: float, h: float, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*);  <<destructor>>+ ~Bird\_four(){};  + key() |