

姓名：蔡鎮偉

學號：F74045026

班別：乙班

UML Diagram

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| **Bird** |
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| +<constructor>Bird(float x, float y, float radius, QTimer \*timer, QPixmap pixmap, b2World \*world, QGraphicsScene \*scene)  +setLinearVelocity(b2Vec2 velocity)  +virtual *ability*(); |

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| Blackbird |
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| +<constructor>Blackbird(float x, float y, float radius, QTimer \*timer, QPixmap pixmap, b2World \*world, QGraphicsScene \*scene);  +void *ability*(); |
| Bluebird |
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| +<constructor>Bluebird(float x, float y, float radius, QTimer \*timer, QPixmap pixmap, b2World \*world, QGraphicsScene \*scene);  +void *ability*(); |

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| Yellowbird |
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| +<constructor>Yellowbird(float x, float y, float radius, QTimer \*timer, QPixmap pixmap, b2World \*world, QGraphicsScene \*scene);  +void *ability*(); |

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| GameItem |
| -QGraphicsPixmapItem g\_pixmap;  - QSizeF g\_size;  - b2World \*g\_world;  - static QSizeF g\_worldsize, -g\_windowsize; |
| +<constructor>GameItem(b2World \*world);  +(deconstructor)~*GameItem*();  -static void setGlobalSize(QSizeF worldsize, QSizeF windowsize);  -b2Body \*g\_body; |

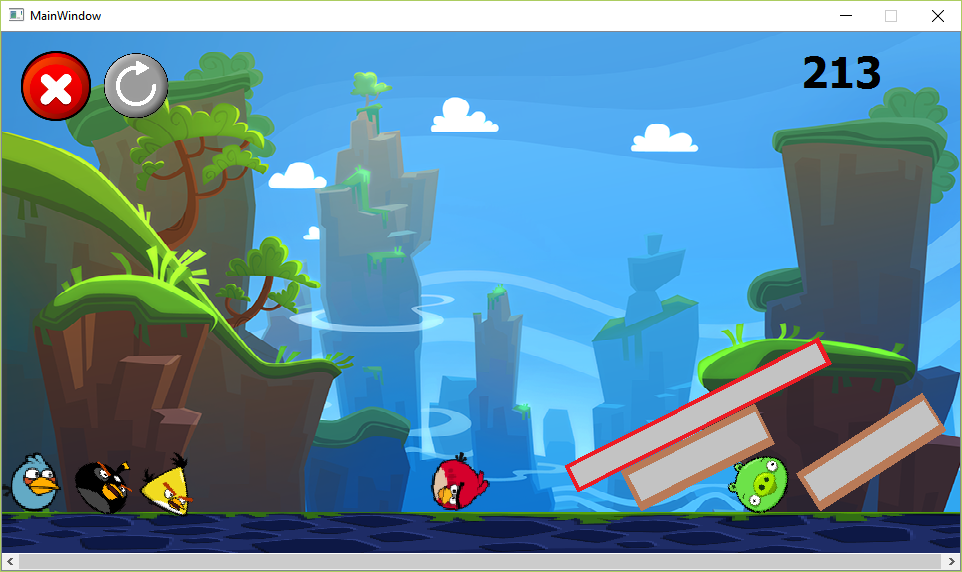
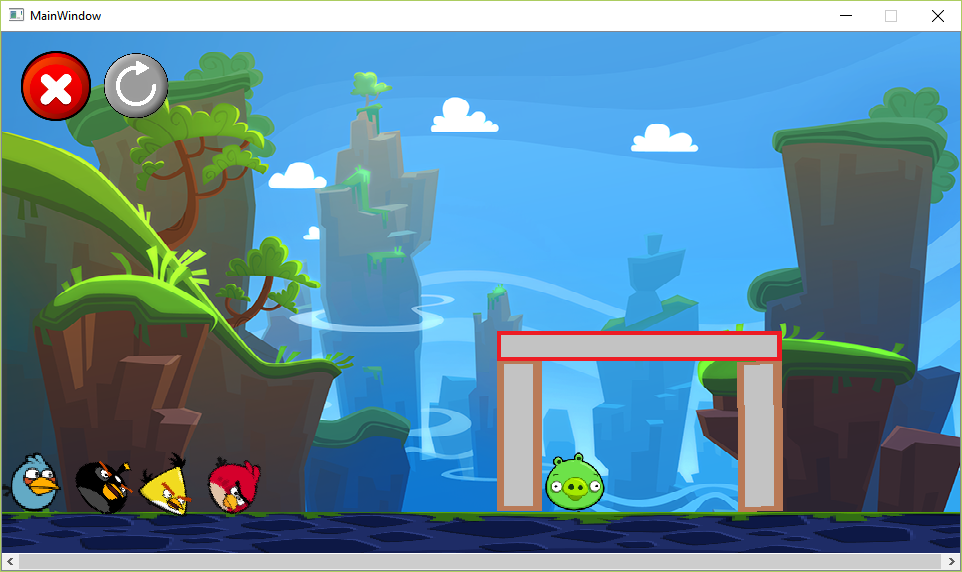
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| Land |
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| +<constructor>Land(float x, float y, float w, float h, QPixmap pixmap, b2World \*world, QGraphicsScene \*scene); |

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| MainWindow |
| -Ui::MainWindow \*ui;  -QGraphicsScene \*scene;  -b2World \*world;  -QList<GameItem \*> itemList;  -QTimer timer;  -QPushButton \*quit\_button;  -QPushButton \*restart\_button;  -b2Vec2 vel;  -QLabel \*score\_label;  -Ob \*block1;  -Ob \*block2;  -Ob \*block3;  -Land \*bot\_bound;  -Land \*up\_bound;  -Land \*left\_bound;  -Land \*right\_bound;  -Pig \*pig;  -Bird \*birdie;  -Yellowbird \*yellowb;  -Blackbird \*blackb;  -Bluebird \*blueb;  +int ix=0,fx=0,iy=0,fy=0;  +int score=0;  +Int presstime=0; |
| +explicit MainWindow(QWidget \*parent = 0);  +<deconstructor>~*MainWindow*();  +void *showEvent*(QShowEvent \*);  +bool *eventFilter*(QObject \*,QEvent \*event);  + void *closeEvent*(QCloseEvent \*);  -void tick();  -void QUITSLOT();  -void re();  void qquit(); |

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| Ob |
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| +<constructor>Ob(float x, float y, float w, float h, QTimer \*timer, QPixmap pixmap, b2World \*world, QGraphicsScene \*scene); |

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| Ob |
| b2BodyDef bodydef; |
| +<constructor>Pig(float x, float y, float radius, QTimer \*timer, QPixmap pixmap, b2World \*world, QGraphicsScene \*scene);  +void setLinearVelocity(b2Vec2 velocity); |

How to play & Screenshot



紅色鳥:沒有功能

黑色鳥:按一下會變大

藍色鳥:會直接向下加速

黃色鳥:向前進方向加速

右上角:當前分數

左上角第一個:關閉遊戲

左上角第二個:重新開始

Program architecture

pig.cpp

ob.cpp

gameitem.cpp

bluebird.cpp

yellowbird.cpp

blackbird.cpp

Bird.cpp

Mainwindow.cpp

main.cpp