**Overzicht van gebruikte concepten** Jakob Festraets

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| **Concept** | **Application(s) in project** |
| Basic Inspector | GameObject.getPosition(), World.getTileSize(), Slime.getSchool() |
| Class invariant | GameObject.isValidHorDirection(direction), World.hasProperTiles(),  GameObject.hasProperWorld() |
| Defensive programming | Alien.startJump(), Alien.endDuck(), While.iterator() |
| Nominal programming | World.removeAsSchool(school), Character.isMoving(direction),  Shark.startJump() |
| Total programming | World.setWindowXPos(windowXPos), GameObject.setHitPoints(hitpoints),  Character.setVertVelocity(vertVelocity) |
| Value Class | Position |
| Enumeration | Direction, Terrain |
| Uni-directional association | GameObject->Timer, World->School, Position->World |
| Bi-directional association | Slime <-> School, GameObject <-> World, World <-> Tile |
| Destructor | GameObject.teminate(), World.terminate(), Position.terminate() |
| Generic Class Instantiation | ProgramFactory.createDoubleConstant(…), ProgramFactory.createIsShark(…), program.globalVariables |
| Test method | MazubTest, ExpressionTest, ProgramTest |
| Polymorphism | Program.gameObject, World.allGameObjects, Variable.type |
| RunTime Type Information (RTTI) | Slime.getHurtBy(other), World.canHaveAsGameObject(object), Program.isWellFormed(statement, inWhile) |
| Dynamic Binding | Slime.advanceTime(timeDuration), Foreach.iterator(), Buzam.hurt(other) |
| Liskov Substitution Principle | Alien.isValidHitPoints(hitPoints), Character.endMovement(direction), Shark.canHaveAsVertAcceleration(vertAcceleration) |
| Interface | StatementIterator, JumpInterface |
| Anonymous Class | While.iterator(), IfStatement.iterator(), SequenceStatement.iterator() |
| Generic Class Definition | isGameObject, Constant |
| Lambda Expression | World.filterAllGameObjects(predicate), Slime.getBlockingObjects(),  Foreach.setVariables() |
| Stream | World.filterAllGameObjects(predicate), ComposedStatement (Constructor),  Foreach.setVariables() |