# BBM104 - Project Assignment 3 Checklist

Task	Status
Used JavaFx	+
Visually there is sky and earth	+
Drill machine has fuel, storage, and money bank	+
Machine attributes can be seen in screen	+
Fuel decreases with movement and with time	+
Money and haul increase with every collected valuable	+
Drill machine changes appearances depending on where it is facing	+
Machine is controlled with arrow keys	+
Machine cannot drill upwards	+
There is at least 3 types of valuable mineral and gems	+
Valuable mineral and gems each have different weights and values	+
Top of the earth has grass	+
There are boulders in the borders (except at the top)	+
Boulders cannot be drilled into	+
There are lava blocks	+
Lava destroys the drill and causes game over (red)	+
Running out of fuel causes game over with collected money (green)	+
There is gravity	+
There is more soil than other elements	+

Demo	https://youtu.be/HsBjk6vefeE
Video Link	

## UML Class Diagram

#### + start(Stage primaryStage): void - x: double - y: double + main(String[] args): void - fuel: double - haul: int - money: int - imageView: ImageView - right: Image Block - left: Image - up: Image · imageView: ImageView down: Image - blockName: String - timeLineOfFuelSpending: Timeline + getImageView(): ImageView + startTheDrill(Label drillInfoTable, Pane pane): Drill + getBlockName(): String + spendFuel(Label drillInfoTable, Pane pane): void + validMove(ArrayList<Block> listOfMap, Pane pane, Image direction): Boolean + move(Scene scene, ArrayList<Block> listOfMap, Pane pane): void + blockControl(ArrayList<Block> listOfMap): Boolean + gravity(ArrayList<Block> listOfMap): void ValuableElement + startGravity(ArrayList<Block> listOfMap): void + getX(): double - monetaryValueOfElement: int + setX(double x): void - weightOfElement: int + getY(): double + setElementInfos(): void + setY(double y): void + getMonetaryValueOfElement(): int + getImageView(): ImageView + getWeightOfElement(): int + getFuel(): double + setFuel(double fuel): void + getHaul(): int + getMoney(): int

#### GameOperations

- + startGame(Pane pane, Scene scene): void
- + createGameScreen(Pane pane, int numberOfHorizontalBlock, int numberOfVerticalBlock): void
- + createDrillInfoTable(Pane pane): Label
- + gameOverScreen(Pane pane, Color color): void
- + gameWon(Pane pane, Drill drill): void
- + gameLost(Pane pane): void
- + randomNumberGenerator(int lowerNumber, int upperNumber): int

### Underground

- + listOfMap: ArrayList<Block>
- + chooseListOfValuableElement(): List<String>
- + createListOfUnderground(List<String> valuableElements, int numberOfHorizontalBlock, int numberOfVerticalBlock): List<Block>
- + createUnderGround(int numberOfHorizontalBlock, int numberOfVerticalBlock, Pane pane, List<Block> listOfMap): void