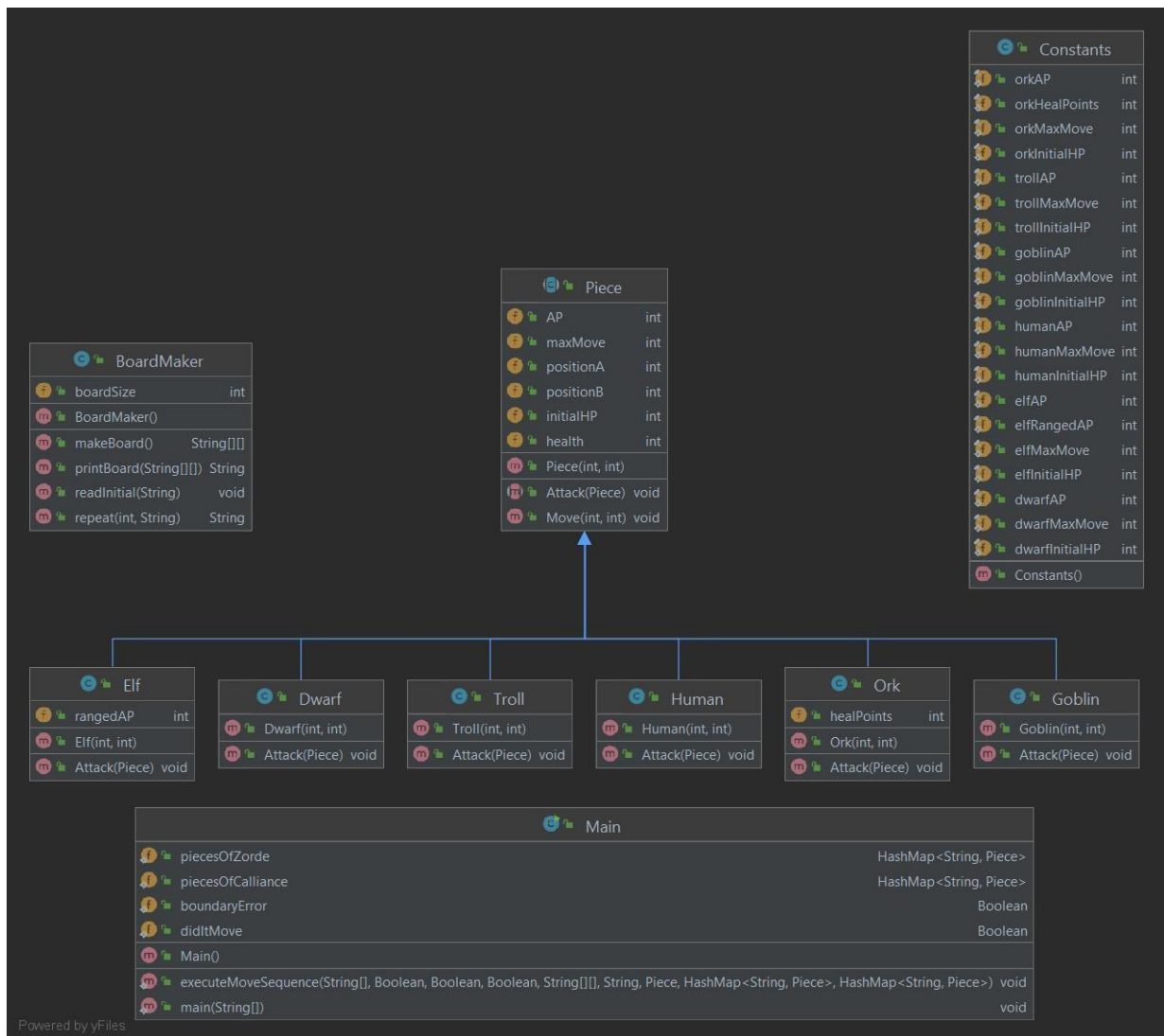# HACETTEPE COMPUTER SCIENCE BBM104'S 3rd ASSIGNMENT's REPORT

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Class Diagram:

Class Descriptions and Polymorphism:

-There is a boardMaker class which I instantiate objects, create an 2D array, print the array.

-There is a Constants class which I use for taking precise values from it.

-There is a Piece superclass which has attacking power, piece health, position, maximum move count etc. It is an abstract class and Attack method is abstract.

-Troll, Elf, Dwarf, Human, Ork, Goblin are subclass of piece and they have their own Attack method which I use for "Polymorphism". Elf has specific rangedAP attribute and Ork has specific healPoints attribute for healing friend pieces.

-There is a Main class which I hold Zorde's and Calliance's pieces. It has 2 boolean for checking errors and executeMoveSequence method for executing the move.

My Solution:

   After I read pdf I created a "Piece" superclass and it's subclasses characters. Then I created a class for reading txt files and creating the board. After that I started to execute move sequences according to input text with a simple "executeMoveSequence" method. In this method I coded attacking, fight to death, healing, moving, range attack etc. by using for loops, necessary booleans, if else blocks. After each sequence I wrote output to a text file. Lastly I checked pieces then wrote the winner. I didn't do any encapsulation because I didn't need it, I coded conditions properly in other classes' methods. It is more convenient for me.

   The Advantages of My Solution:

   + There is a simple "boardMaker" class that doesn't need so much debugging. I easily create objects, create the board and print the board.

   + There is only one really important method "executeMoveSequence" which you can change   it easily. You don't get lost in methods.

   + It is readable. When you open the project again you don't need to waste time for it.

   The Disadvantages of My Solution:

   - I couldn't find.

My Comments and Feedbacks:

   It is good for idea of programming a game. But working on an 2D array wasn't much fun. That's all I can say.

References:

https://docs.oracle.com/en/java/javase/11/docs/api/index.html

https://www.javatpoint.com/how-to-sort-string-array-in-java

https://www.stackoverflow.com/questions/9806421/concurrentmodificationexception-when-adding-inside-a-foreach-loop-in-arraylist