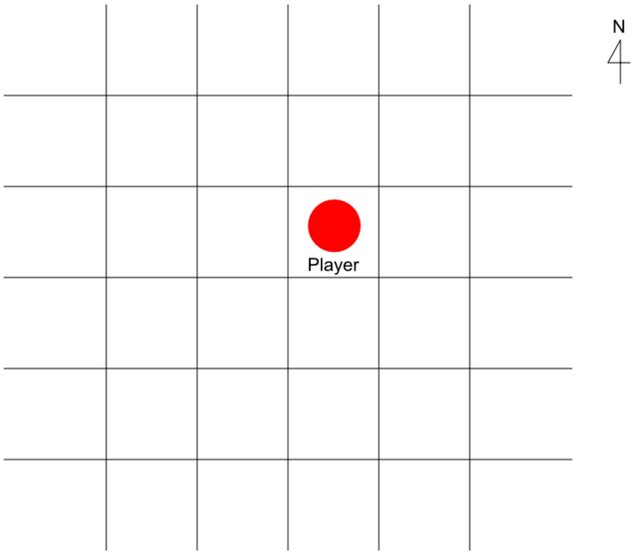
PPJ Project 2021 v1.1

Your main task is to create a console-based game.

The game has to use:

- I/O to communicate with user[1]
- Map (2D board)



Game visualization
(You have to create text version)

[1] Terminal

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Scoring

To gain 100% of project's points, you have to choose a collection of features for your game and implement it. The final score includes:

1. Features (12 points)
2. Good practices (5 points)
3. Using Java API (3 points)

Features table

Difficulty	Name	Example	Gain
Easy	Store information about player	You can create a class for storing data like health, mana, points, resources, money etc.	1 pt.
Easy	Place player on the map	You can set (x,y) position related to map	1 pt.
Easy	Allow player to move on the board	Game asks: "Where do you want to move?" Players writes: "NORTH" So, player is one spot up	1 pt.
Easy	Add some elements on map	If player is present on element's spot, it will decrease health points or increase money	1 pt.
Medium	Add randomness	Every time you play, elements are in different position	2 pts.
Medium	Add 4 types of elements	There should be 4 different actions. Adding different amount of money is still just one action.	2 pts.
Medium	Add NPCs	Player can meet a game character to interact with.	2 pts.
Medium	Allow to lose / win	If health < 0, then player dies. If player achieves something, the player wins etc.	2 pts.

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Hard	Make world infinite	Map increases its size and generates content by itself	3 pts.
Hard	Add option to upgrade	Upgrade is like adding availability to move 2 fields instead of one.	3 pts.
Hard	Use hexagons instead of squares to build the map	You can move in 6 directions.	3 pts.
Hard	Allow player to change a tile	Player can build bridge to cross the river	3 pts.

Good practices

Your code should be readable and clean:

1. Class does one job.
2. Method should be maximum 30 lines long.
3. Class should have minimal static parts.
4. Create many classes.
5. Class should have maximum 10-15 methods.
6. Don’t use break or continue for loops.
7. Name your variables to make it easy to understand.
8. Use build-in code prettifier (in Intellij: Code -> Format)

Java API

1. Use package(s)
2. Use Java built-in classes (3 minimum)
3. Use inheritance
4. Use hermitization
5. Use arrays
6. Use own defined types

Submitting

What do I need to prepare?

1. Solution in source folder
2. List of features according to features table (remember to gain 12 points in total)

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