

10. Prototype program

2-Rain in Moldova

Supervisor:

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Members:

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|------------------------|--------|---------------------------|
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27.04.2020

10. Prototype program

10.1 Deployment guide

10.1.1 List of files

| File name | Size | Date | Content |
|---------------|-------|------------|---|
| Blizzard | 2 KB | 26.03.2020 | Contains Blizzard class with its methods and attributes. |
| Charge | 1 KB | 08.04.2020 | Contains Charge class with its methods(overridden) and attributes. |
| DivingSuit | 1 KB | 26.03.2020 | Contains DivingSuit class with its methods(overridden) and attributes. |
| Eskimo | 4 KB | 26.03.2020 | Contains Eskimo class with its methods (overridden) and attributes. |
| Flare | 1 KB | 08.04.2020 | Contains Flare class with its methods(overridden) and attributes. |
| Food | 1 KB | 26.03.2020 | Contains Food class with its methods(overridden) and attributes. |
| Game | 18 KB | 26.03.2020 | Contains Game class with its methods and attributes. |
| GameMain | 18 KB | 26.03.2020 | Contains GameMain class with its methods and attributes. Here you can find Main() function. |
| Gun | 1 KB | 08.04.2020 | Contains Gun class with its methods(overridden) and attributes. |
| Iceberg | 5 KB | 26.03.2020 | Contains Iceberg class(overridden) with its methods and attributes. |
| Inventory | 3 KB | 26.03.2020 | Contains Inventory class with its methods and attributes. |
| ItemBase | 2 KB | 26.03.2020 | Contains abstract ItemBase class with its methods and attributes. |
| Map | 8 KB | 26.03.2020 | Contains Map class with its methods and attributes. |
| PlayerBase | 15 KB | 26.03.2020 | Contains abstract PlayerBase class with its methods and attributes. |
| PolarExplorer | 3 KB | 26.03.2020 | Contains PolarExplorer class with its methods(overridden) and attributes. |
| Rope | 1 KB | 26.03.2020 | Contains Rope class with its |

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|----------------|-------|------------|--|
| | | | methods(overridden) and attributes. |
| Shovel | 1 KB | 26.03.2020 | Contains Shovel class with its methods(overridden) and attributes. |
| BlizzardTest | 3 KB | 30.04.2020 | Contains the tests for the Blizzard class functionality |
| GameTest | 2 KB | 30.04.2020 | Contains the tests for the GameTest class functionality |
| PlayerBaseTest | 11 KB | 30.04.2020 | Contains the tests for the PlayerBaseTest class functionality |

10.1.2 Compilation

The main requirements for the environment for the successful compilation are:

- Any operating system: Windows, OSX, Linux.
- IntelliJ IDEA
- JDK 11 (Correto 11)

10.1.3 Run

In order to be able to run the executable program:

- Set the configuration: Main method in GameMain
- Class path of module: Icefield.desktop.main

There are 2 options to start the game after you pressed: Run 'GameMain' . The first one is to see some information in the terminal and to interact with the console. User should specify the commands and the program will be running following this commands. The second option is to read the input from the file. All the commands and workflow of the game is specified in there. In each case user will see the output of the actions.

In order to be able to run the tests the user should go to the test folder under the com.rim.Icefield. There are 3 test files. By right click on the file user can specify if he wants to run the test or if he wants to run it with the coverage.

10.2 Test protocols

Overall Coverage Summary

| Package | Class, % | Method, % | Line, % |
|-------------|----------------|-----------------|------------------|
| all classes | 83,3% (15/ 18) | 50,4% (58/ 115) | 33,1% (267/ 806) |

Coverage Breakdown

| Package ▼ | Class, % | Method, % | Line, % |
|--------------------------|----------------|-----------------|------------------|
| com.rim.IceField.desktop | 0% (0/ 1) | 0% (0/ 2) | 0% (0/ 4) |
| com.rim.IceField | 88,2% (15/ 17) | 51,3% (58/ 113) | 33,3% (267/ 802) |

10.2.1 Test-case1: Creating a Player

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|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.2 Test-case2: Stepping on an unstable iceberg

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|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.3 Test-case3: Stepping on a hole

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|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.4 Test-case4: Edge of the map

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|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.5 Test-case5: Player in the water without a diving suit

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|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.6 Test-case6: Player in the water with a diving suit

| | |
|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.7 Test-case7: Save the character

| | |
|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.8 Test-case8: Removing of snow by hand

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|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.9 Test-case9: Removing of snow by shovel

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|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.10 Test-case10: Blizzard blowing

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|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.11 Test-case11: Picking the item

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|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.12 Test-case12: Impossible to pick the item

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|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.13 Test-case13: Impossible to pick the item case 2

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|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.14 Test-case14: Eat food

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|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.15 Test-case15: Polar explorer skill use

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| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.16 Test-case16: Eskimo skill use

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|---------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.17 Test-case17: Heat level reaches 0

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|--------------------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.18 Test-case18: Win scenario of the game

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|--------------------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.2.19 Test-case19: Lose scenario of the game because of Blizzard

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|--------------------------------|-----------------|
| Name of the tester | Anna Hramova |
| Date & time of test | 27.04.2020 9:00 |

10.3 Evaluation

| Name of the team member | Participation (%) |
|--------------------------------|--------------------------|
| Alghaith Ahmad | 20 |
| Andreea Daniela Moraru | 20 |
| Anna Hramova | 20 |
| Danil Stefaniuc | 20 |
| Dinu Botan | 20 |

10. 4 Protocol

This iteration was proceeding in a real agile way considering meetings, Kanban board used and communication between developers. Protocol is a more abstract view on our project workflow, but the real one you can find on github. We created tasks (issues), assigned them and could see at which stage is everyone. Every new error found by testing or just by code review was specified there.

The link: <https://github.com/AirinB/IceField/projects/2>

| Start (date & time) | Duration (hours) | Performer(s) name | Activity description |
|--------------------------------|-------------------------|---|--|
| 21.04.2020 16.00 | 2 | Stefaniuc, Botan, Alghaith, Moraru, Hramova | Meeting: discussion of the result and inaccuracies of the last week's job. Discussion of the prototype program, tasks assigning. The result is: Hramova is responsible for the tests cases, Stefaniuc is |

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| | | | responsible for the game logic and some methods, Moraru is responsible for the modifications in all classes regarding the methods logic, Botanu is responsible for the creation of inputs and outputs used in the game, Alghaith is responsible for the map creation and displaying in the console. |
| 23.04.2020 16.00 | 3 | Stefaniuc | Resolving the issues with some methods of the methods of PlayerBase, Game and other classes. |
| 23.04.2020 16.00 | 3 | Moraru | Resolving the issues with some methods of the methods of PlayerBase, Game and other classes. |
| 24.04.2020 16.00 | 1 | Hramova | Several tests creation and finding minor errors. |
| 25.04.2020 10.00 | 2 | Stefaniuc, Botan, Alghaith, Moraru, | Meeting: Discussion of the tasks implementing and their future updating. |
| 25.04.2020 13.00 | 3 | Stefaniuc | Updating of the methods implemented. |
| 25.04.2020 14.00 | 3 | Botan | Proceeding with inputs and outputs. |
| 25.04.2020 14.00 | 5 | Hramova | Creation of test cases. |
| 26.04.2020 16.00 | 3 | Moraru | Updating of the methods implemented. |
| 26.04.2020 12.00 | 6 | Alghaith | Creation of map and it's view in the console. |
| 27.04.2020 9.00 | 4 | Stefaniuc, Botan, Alghaith, Moraru, Hramova | Meeting: Review of the new changes. Discussion of the test-cases. Applying minor modifications to the methods. Filling out the word document: List of files, Run, Evaluation, Protocol sections. Creation of Javadoc comments. |
| 27.04.2020 13.00 | 1 | Stefaniuc, Botan, Alghaith, Moraru, Hramova | Meeting: Final review of the Prototype program delivered. |