

OBJECT ORIENTED PROGRAMMING

MIDTERM #1

20 points in total

Rules:

- Find your package and explore it as your files and folders are only inside this package. Nothing is given outside this package. If the assignment states that “Find the file *somefile*”, it means that the file should be found inside your package. Do not change the provided files and folders if this is not required in the assignments itself.
- Answers should be submitted as GitHub repository link via email. Create a new public repository for the exam. The repository should be alive until the exam will be evaluated.
- You have 3 hours for the exam. Late answers will not be evaluated. Please note that file upload dates will be checked in your repository, all files should be uploaded during the exam.
- Attendance in class is mandatory during the exam; remote participation is not allowed.
- You are allowed to view materials in Google Classroom, use Search Engines such as Google, Bing, etc. and ask AI tools such as ChatGPT, Bard, etc.
- You are not allowed to have any type of communication (Mobile, Email, Social Network, etc.) with other humans during the exam.
- The exam will not be evaluated in case of cheating.

Task 1

(5 points)

Locate and finish the class `Fantasy`. Do not return `null` values from the class methods.

Upload the class `Fantasy` in your repository as the answer of this task.

Task 2

(5 points)

Locate the “`lms.pdf`” in your files. Propose an idea that is similar (but not the same) to the provided document theme. Keep the class structure the same as it is in “`lms.pdf`”. Ensure that your theme (but not the class structure) is distinct from the LMS and differs from those chosen by other students. Try to include something specific to you, your country, family, or culture. “Future Improvements” section of this masterclass document should be ignored.

Create the similar PDF document ‘`task2.pdf`’ about your topic. Try to keep the similar formatting. Use google docs or other text editors to type your text and then convert the document to pdf. Other methods are acceptable as well.

Upload the ‘`task2.pdf`’ in your repository as the answer to this task.

Task 3

(5 points)

Develop the software using ‘`task2.pdf`’ from the task 2.

Place all the classes to the `task3` package and upload them in your repository as the answer to this task.

Task 4

(5 points)

Locate the class 'WordStat'. Analyze its content. It is denied to delete or change the content that is provided in this class. You are allowed only to add the new content to this class.

Create the set of all the different words provided and print it on the console. Copy the result in the text file "task4.txt". Create the map in which the key will be the length of the word and the value will be the number of the words with the corresponding length. Print this map on the console. Skip 2 lines after the existed content in the "task4.txt" file and add the console output to the same file.

Upload the modified class 'WordStat' and 'task4.txt' in your repository as the answer to this task.