Programação

2020/2021

Project 1

Data limite de entrega: 1 de março, 23h:59m; Peso de 1 valor em 20 valores na nota final

Description

Develop a program in Python that allows the user to calculate the areas of geometric figures and volumes of geometric solids. The user should be asked whether they want to calculate areas or volumes.

If the user chooses to calculate areas, they should be presented with a list of geometric figures (rectangle, triangle, pentagon, circle) and given the option to choose one. Then, depending on the chosen option, the user should be prompted for the necessary data to calculate the area of the selected geometric figure. Finally, the name of the geometric figure, the parameters used, and the calculated area should be displayed on the screen.

Similarly, if the user chooses volumes, they should be presented with a list of solids (sphere, cone, cylinder, parallelepiped) and given the option to choose one. Then, depending on the chosen option, the user should be prompted for the necessary data to calculate the volume of the selected geometric solid. Finally, the name of the geometric solid, the parameters used, and the calculated volume should be displayed on the screen.

Grading of the projects

The maximum grade for the practical assignment is 1 point (out of 20 points). Each group (two students) should work on a solution and submit it on InfoEstudante by 23:59 on March 1, 2021. They should submit a .py or .ipynb file and a PDF of the same code.

There are three levels of grading: 1 - the solution is correct; 0 - the solution is incorrect; 0.5 - intermediate situation, i.e., the solution is partially incorrect, or the result is incorrect, but the algorithm is very close to being correct.

Defense rules: - each assignment is subject to defense, with each member of the group being able to explain the solution and answer questions from the instructors; - defenses take place during the last class dedicated to the topic, according to the course schedule; - in online classes, students must have their camera and sound activated during the defense; - after the defense, the grade assigned to each student may be lower than the grade for the assignment, depending on individual performance during the defense.