

Homework 2 Trends

September 20, 2022

Question 1.a

- What went well?
 - More than half of the students answered this question well. They have identified suitable attributes, operations, and relationships between classes.
- Common mistakes:
 - A small number of students have failed to provide descriptions for the methods in the LoanAccount class.
 - A small number of students have failed to provide descriptions for the attributes in the LoanAccount class.
 - Some students defined one simplistic class.
 - Some students did not define the functionality to find the monthly payment even though they have named a function and allowed us to infer that this method maps to find the monthly payment. Since there was no description of the methods, we could not make inferences. This same pattern is applied for the make payments functionality.

Question 1.b

- What went well?
 - Most students have done this question well. Most of the students received full marks for it.
- Common mistakes:
 - Few students did not provide pre-condition 2 for method 1.
 - A small number of students did not pre-condition 2 for method 2.

Question 2.a

- What went well?
 - Just over half of the students answered this question well.
- Common mistakes:
 - Some students have defined benefits that don't adhere to the LoanAccount class.

Homework 2 Trends

September 20, 2022

Question 2.b

- What went well?
 - Most students answered this question well.
- Common mistakes:
 - Some students have defined the benefit of modularization that doesn't adhere to their LoanAccount class.

Question 2.c

- What went well?
 - Most students answered this question well.
- Common mistakes:
 - Some students have provided an explanation that doesn't adhere to LoanAccount class.

Question 3.a

- What went well?
 - Most of the students identified some appropriate classes for the stopwatch.
 - Few students have also provided descriptions of the classes which helped in understanding their functionality.
 - Many students could identify relationships between classes correctly along with the visibility of attributes and functions.
- Common mistakes:
 - Half of the class did not mention an operation to increment time.
 - Some students did not mention an operation to display the time. Though UI was not asked for, the problem statement mentioned that the time should be displayed all the time and thus, it was expected to provide at least an operation to display time.
 - As per the problem statement, "The maximum duration for time is 60 minutes and 0 seconds", and thus there should have been attributes for minutes and seconds to provide this functionality. Some students did not.
 - A few students did not use Astah for specifying UML class diagrams. The use of Astah was stated in the course syllabus as well as the homework assignment.

Homework 2 Trends

September 20, 2022

Question 3.b

- What went well?
 - Many students correctly classified the classes in their class diagram as active or passive.
 - Along with this, the majority of students were able to justify why a given class is active or passive.
- Common Mistakes:
 - Few students mentioned certain classes in their class diagram as active even though there isn't any operation inside that class. There were a couple of examples where the class had no attribute or operation and was listed as an active class.
 - Few students categorized the classes correctly but provided insufficient explanations such as it is active because it can change the flow of the program without being asked to do.
 - In certain cases, the explanation was not understandable or it was unclear why a class is active. No explanations for the operations or functionality that makes a class active were given.
 - In a few cases, the classes are explained as active but as per the UML class diagram were passive and vice versa.