

## Dart Assignment: 28-9-2025

1. Explain the difference between parse and tryParse.

Provide an example that shows what happens when the string is invalid in both cases.

2. Handle empty string input from the user in two different ways:

Using a while loop, allow the user to try again up to 3 attempts.

Using a for loop, allow the user to try again up to 5 attempts.

3. Explain the purpose of try-catch. Why do we use it?

4. Use try-catch to handle the error when dividing by zero.

5. What is an abstract class in Dart? Explain in your own words.

6. Create an abstract class Shape with an abstract method area().

Create two classes Circle and Rectangle that implement the Shape and area() method.

7. Create a base class Person with properties name and age.

Create a subclass Student that extends Person and adds grade. Then print the student's details.

8. Difference Between extends and implements. Explain the difference in Dart.

9. ATM Example: Create a simple ATM program with:

- Option to deposit or withdraw money.
- Input validation: if the value is empty, show a message "You must enter a value".
- Allow up to 3 attempts if the user enters invalid input.

Note\*\* Declare a function that accept the amount from user and parse it. Then use this function in case deposit and withdraw.

10. Create a class 'book' that holds data like 'id', 'name of book', 'category', 'num of pages', 'author' and bool 'isFree'.

And also create class 'library', this class includes many of methods ( display book data , search for book , add one book , add list of books , delete book ). Then use all library methods in main.

11. Explain the purpose of static?

Answer all, create pdf that including the question and code screenshot.

Deadline: 29-9-2025