Lab 4 Documentation

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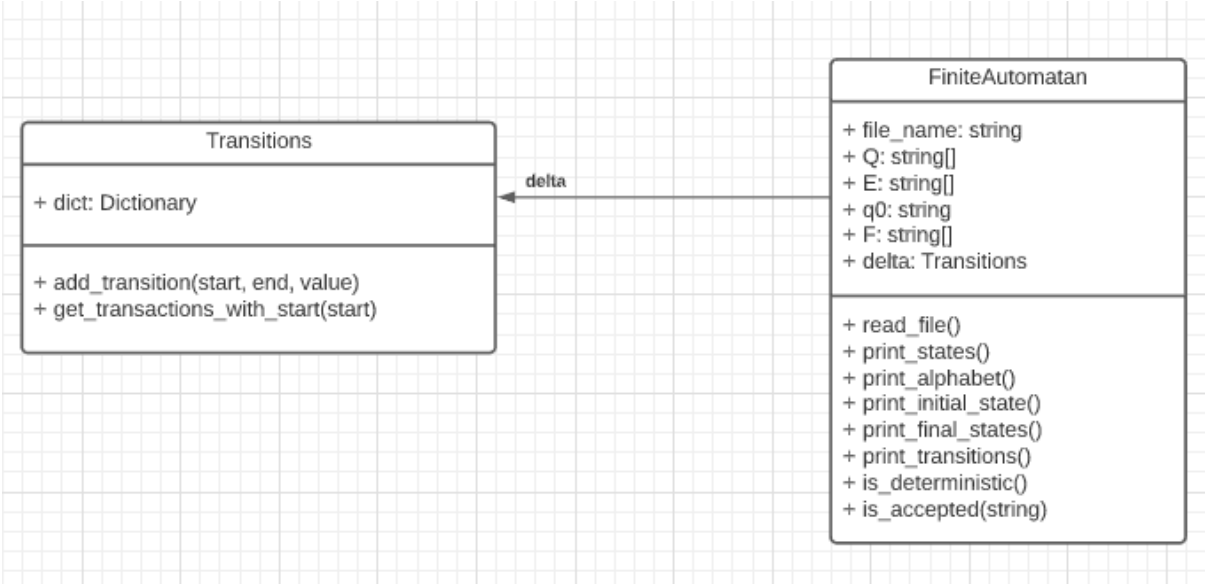
Github: https://github.com/SummerRolls99/FLCD/tree/main/lab%205%20-%20finite%20automatan



For the finite automatan I have stored the list of states as a set of string, initial state is a string, final states are a set of string, the alphabet is also a set of string. The transitions are stored in a class where a dictionary is used (the key is the starting state, the value is a tupple between the end state and value).

Tests:

```
def test():
    fa = FiniteAutomatan("fa.in")
    assert fa.is_deterministic() == True
    assert fa.is_accepted("aac") == True
    assert fa.is_accepted("aba") == False
    assert fa.is_accepted("aaaaaaaab") == True
    assert fa.is_accepted("aaaa") == False

    non_det = FiniteAutomatan("nonDet.in")
    assert non_det.is_deterministic() == False
```