Source control

Input

- o Choice of topic – input box
- o Choice of learning material – input box
- o Choice of quiz – input box
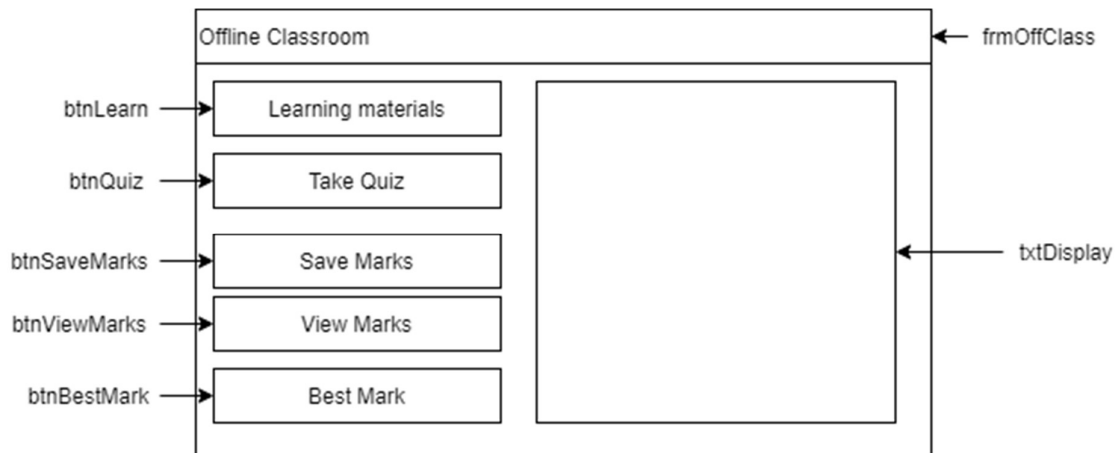
Output

- o Learning materials for subject topic - multiline textbox
- o Marks for quizzes – multiline textbox

Events	Action
btnLearn	Asks the user what topic they want to learn Display Learning materials
btnQuiz	Generate Questions and answers Display questions Read user inputted answers Display whether answer is correct Show score out of 10

Variables

- numDays – Integer
- numPuppies – Integer
- PriceperKilo – double
- Puppies() – puppy
- d - Integer
- p - Integer

Interface

Algorithm

btnLearn

Read in topic choice

Display Learning Material

btnQuiz

Generate random questions with answer

for each question

    display problem

    read in input

    if answer is correct
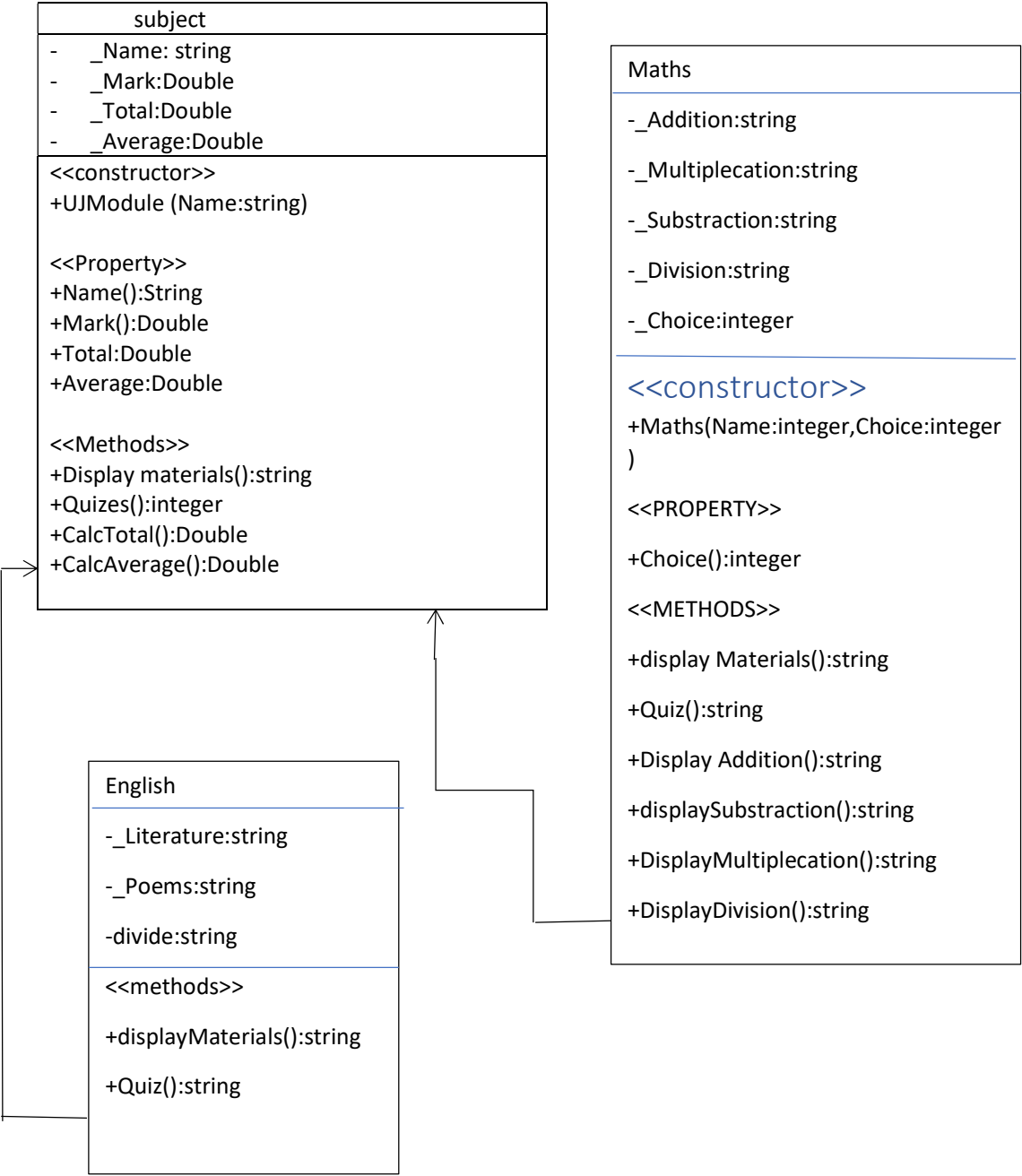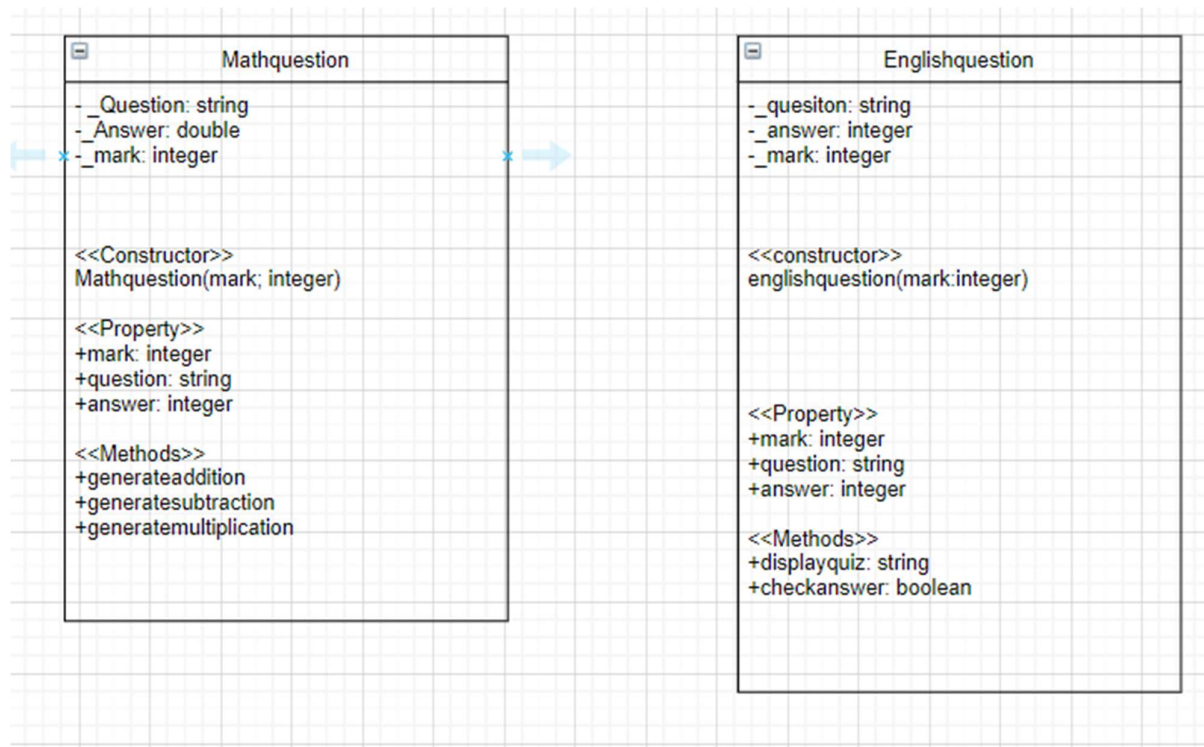
        display correct

    else

        display correct answer

    end if

end for

UML Class Diagram

subject

- - _Name: string
- - _Mark:Double
- - _Total:Double
- - _Average:Double

<<constructor>>
+UJModule (Name:string)

<<Property>>
+Name():String
+Mark():Double
+Total:Double
+Average:Double

<<Methods>>
+Display materials():string
+Quizes():integer
+CalcTotal():Double
+CalcAverage():Double

Maths

- -_Addition:string
- -_Multiplecation:string
- -_Substraction:string
- -_Division:string
- -_Choice:integer

<<constructor>>

+Maths(Name:integer,Choice:integer)

<<PROPERTY>>

+Choice():integer

<<METHODS>>

+display Materials():string

+Quiz():string

+Display Addition():string

+displaySubstraction():string

+DisplayMultiplecation():string

+DisplayDivision():string

English

- -_Literature:string
- -_Poems:string
- -divide:string

<<methods>>

+displayMaterials():string

+Quiz():string

Mathquestion

- _Question: string
- _Answer: double
- _mark: integer

<<Constructor>>
Mathquestion(mark; integer)

<<Property>>
+mark: integer
+question: string
+answer: integer

<<Methods>>
+generateaddition
+generatesubtraction
+generatemultiplication

Englishquestion

- _quesiton: string
- _answer: integer
- _mark: integer

<<constructor>>
englishquestion(mark:integer)

<<Property>>
+mark: integer
+question: string
+answer: integer

<<Methods>>
+displayquiz: string
+checkanswer: boolean

Test data

Input for English quiz

Question1 = 1
Question 2 = 1
Question 3 = 2
Question 4 = 2

Output for English quiz

Results:
1) Correct
2) Incorrect
3) Incorrect
4) Incorrect
   Marks = 1 / 4

Input for Math Quiz
Answers:

Question1 = 18

Question 2 = 1770
Question 3 = 23
Question 4 = 70
Question 5 = 23
Question 6 = 900
Question 7 = 1
Question 8 = 105
Question 9 = 42
Question 10 = 100

Output for Math Quiz

Marks = 7 / 10