# Input

* + Choice of topic – input box
  + Choice of learning material – input box
  + Choice of quiz – input box

# Output

* + Learning materials for subject topic - multiline textbox
  + 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

A picture containing graphical user interface

Description automatically generated

# 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

|  |
| --- |
| <<Abstract>>UJ Module |
| * + - \_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 |

# 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