1. Header

A -Team Group 76
Project Name: Quiz Generator
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2. Class Summary

enum, interface, (abstract) class	Name of the type	Description of use or purpose of this type
Class	Question	Question class, store the question content, topic, answer, image...
Class	Topic	Contain a list of all question, number of questions of this topic
Class	Database	Contain a list of all topics in the database, total number of question in the database. Can add question into it.
Class	Quiz	The process of the quiz, contain quiz_questions list, current index, current number correct.

3. Class Diagrams

Question Class:
Fields: String content, String answer, Topic topic, String image

return type	name	parameter list	description
null	Question	Content, Answer, Topic	Constructor of Question class
String	get_content	none	Getter for the content
String	get_answer	none	Getter for the answer
String	get_topic	none	Get the topic name
String	get_image	none	Get the image file name
Boolean	check_answer	String: user_answer	Check whether the answer is correct or not

Topic Class:
Fields: String name, List<question> Question_list, int Num_questions

return type	name	parameter list	description
null	Topic	Name	Constructor of Question class
null	add_quest	question	Add a question into this topic
int	get_num	none	Getter for number of questions
question	get_quest	Int n	Get the question at index n
List<question>	get_question_list	Int n: number of random questions	Return a list of random questions in this topic

Database Class:
Fields: List<topic> Topic_list, int Num_questions, String file_name

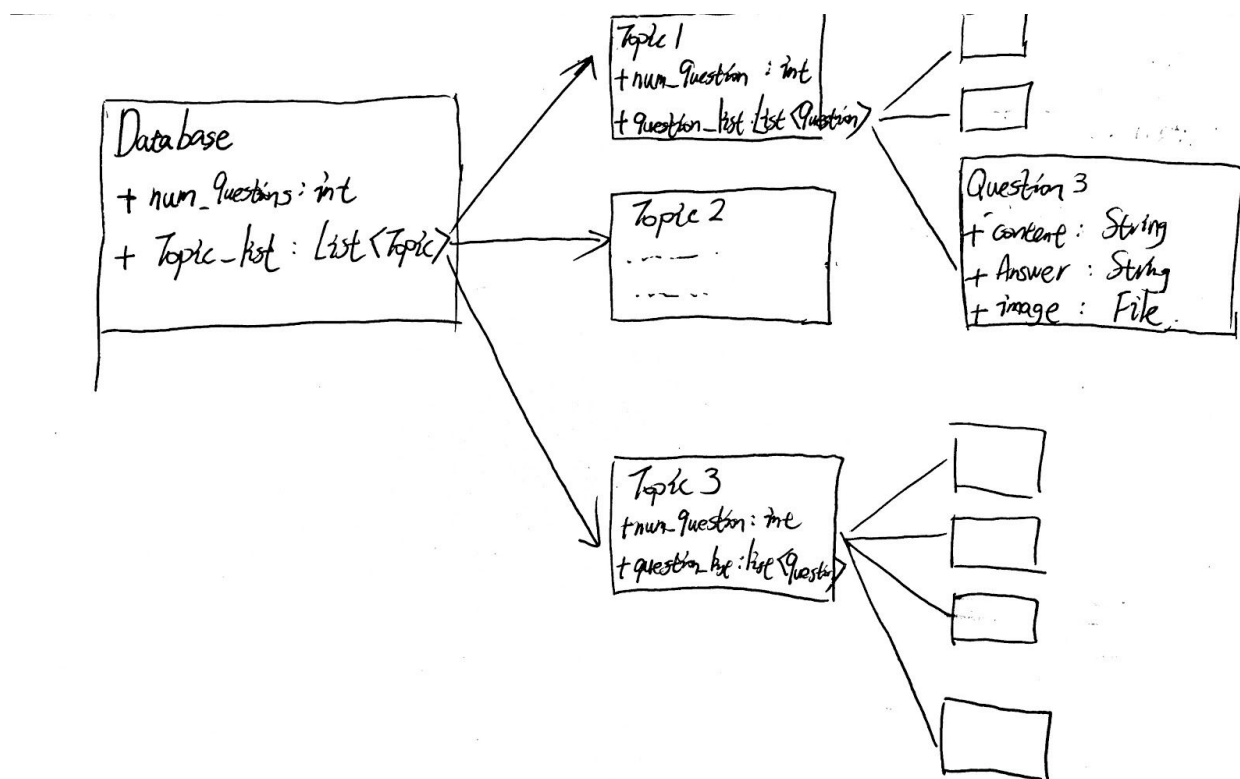| return type	name	parameter list	description
null	DataBase	file	Constructor of the database based on the Json file
null	add_question	String: topic_name, question	Add a question into the database (into the correct topic)
null	Load_file	String: file name	Load a Json file as current database
Int	get_num	none	Get the total number of questions
List<Question>	get_question	Int num, String topic	Get num question from the chosen topic
List<String>	get_all_topic	none	Get the sting list of all the topic

Quiz Class:
Fields: int Num_questions, int current index, int num_correct, List<Questions> question_list

return type	name	parameter list	description
null	Quiz	Topic_list, int n	Constructor of Quiz class, choose n random questions from the topic chosen
question	get_next	none	Get the next question and increment i
boolean	check_ans	String user_answer	Check whether the answer is correct or not, if correct increment num_correct
Boolean	get_score	none	Get the final score by num_correct/ n

4. Object Diagram - a sketch or list of the object instances that exist when program first is first launched

instances (objects) exist when the program's main GUI page has been created

After the import:

5. GUI Layout Sketch - an image saved in your design document

Starting

Welcome to Quiz-Generator!

Import file : [   ] json

Main

file successfully imported!

total number in database : [n]

Choose topic :
number : [   ]

| topic 1 |
| topic 2 |
| topic 3 | [done]

[Add a new question]

Error file →

choose topic done ↓

Quiz - begin

Question number 1 : ~~~~~~~~~~~~~

[Image]

Your answer : [   ]

[Submit]

Add a new question ↓

New question setup :

Topic : [   ]

Content : [   ]

Answer : [   ]

[finish & Load]

Quiz - finish

Well done! You have finished!

Score : [   ] %

[do another quiz] ----> Main

[import new database] ----> Starting