



# Quiz Administration & Editing

Abstract classes used by bot for administering/editing quizzes.

<b>ID protocol</b> id = message.id	<b>Session</b> Quiz: Quiz	<b>Attributes</b> <i>users</i> contains all users participating in the quiz. <i>quiz</i> contains the quiz object.
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# Quiz

Class to store questions and moderate them

Quiz	Attributes
name: str	

# Quiz

Class for

Subclasses	
- FreeResponse	
- Numeric	
type: str	

# Question Types

framework for offered questions

Question	Attributes
	<i>type</i> denotes the question type <i>text</i> is the text for the question that users will read



**Attrition**

*user* is the Discord user  
private session is for  
*active* is false if the u  
during response wait

where message is the command message

**Subclasses**  
- SharedSession  
- PrivateSession

+ quiz: Quiz  
+ id: int  
  
+ on\_message(message)  
+ on\_react(reaction, user)  
+ close()

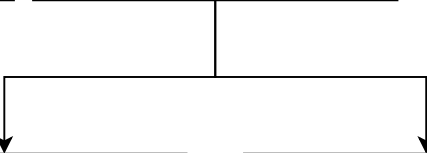
session. Key is their Discord ID and value is the augmented object.  
*id* identifies this session for the callback cog.  
*on\_message* executes when callback cog receives a message for this session.  
*on\_react* executes when callback cog receives a reaction for this session.  
*close* initiates a process to end all sessions (by force kill or wait)

**Attributes**  
user object that the  
user has timed out

**PrivateSession**  
...  
+ user: discord.User  
+ active: bool  
...

**PublicSession**  
...  
+ users: Dict[id, PrivateSession]  
+ context: commands.Context  
+ period: Time  
+ open\_time: datetime.datetime  
+ kill\_on\_period: bool  
...

**Attributes**  
*users* contains all users participating in the session. Key is their Discord ID, value is the user's private session object.  
*kill\_on\_period* ends private sessions when the parent session's period ends



**EditSession**  
...  
...

**QuizSession**  
...  
+ parent: PublicSession  
...  
+ time\_remaining(property)

**Attributes**  
*parent* denotes the public session object this session is attached to  
*time\_remaining* shows the time remaining to complete the quiz

ating in  
ID and  
on.  
ions  
d ends.

+ name: str  
+ version: int  
+ id: int  
+ shuffle: bool  
+ questions: List[Question]  
+ size: int

*name* is given by user upon creation.  
*version* denotes the number of times this quiz has been changed.  
*id* identifies this quiz for the database.  
*shuffle* tells the quiz to randomly order questions when administering  
*questions* contains all question objects in the quiz  
*size* Number of questions to administer from preset. Defaults to all.

- Numeric  
- MultipleChoice

+ type: str  
+ text: str  
+ image: bool  
+ answer: str  
+ id: int  
+ \_attrs: List[dict]  
  
+ help(): str  
+ dict(properties): dict  
+ qtype(properties): str  
+ embed(image): bool  
+ base\_editor(): str  
+ editor\_embed(): str  
+ \_\_base\_editor(): str  
+ \_base\_editor(): str  
+ build(\*args): str  
+ convert(answer): str  
+ check(response): bool  
+ edit\_bool(attribute: str): bool  
+ edit\_text(attribute: str): str  
+ edit\_answer(attribute: str): str  
+ edit\_type(attribute: str): str

**Attributes**  
*exact* denotes whether answers must be character-for-character accurate, or to use Levenshtein fuzzy logic based on the size of the answer  
*\_min\_ratio* describes the minimum Levenshtein value any FreeResponse question must have (set at 70)  
*precision* is the Levenshtein ratio required to receive credit (100 if exact)  
*edit\_exact* edits the exact attribute

**FreeResponse**

...

+ exact: bool  
+ \_min\_ratio: int

...

+ precision(property): bool  
+ edit\_exact(change: str): bool

**Attributes**  
*decimal* denotes the number of decimal places to round the answer and response to when checking  
*numeric\_string* converts a string of numbers to an integer or float (or NoneType)  
*\_edit\_decimal* edits the decimal attribute of the question

...

+ decimal: int

...

+ \_numeric\_string: str  
+ edit\_decimal(attribute: str): int



bytes

Union[str, int, float, list]

st[str]

er

erty): dict

roperty): str

(int): discord.Embed

bed(i: int)

bed(property): discord.Embed

dict(): dict

ditor\_embed(): discord.Embed

gs, \*\*kwargs)

response(text: str): str, int, float

sponse): bool

lean(change: str, attr: str): bool

(change: str): bool

wer(change: str): bool

e(change: str): bool

text is the text for the question that users will read

image contains the bytes of an image to be displayed with the question

answer is the answer the user must get

id is the database identifier for this question (0 if new)

\_attrs list of the question type's core attributes

help produces the help text for that question type

dict returns a dictionary of the question-related attributes

qtype returns formatted text of the question type

embed creates an embed of the question

base\_embed creates an embed of the question with the basic fields

editor\_embed embed to be seen by someone editing the question

\_\_base\_dict creates a dict with the basic question attributes

\_\_base\_editor\_embed creates an editor embed with the basic fields

build is run at the end of \_\_init\_\_ to augment any arguments or attributes

convert\_response changes the user's text to the format the question expected

check returns whether the response is the answer

edit\_boolean edits the value of a boolean question attribute

edit\_text edits the question's text

edit\_answer edits the question's answer

edit\_type converts the question to a different type

Numeric

int

c\_string(string: str): Number

imal(change: str): bool

Subclasses

- MultipleResponse

MultipleChoice

...

+ options: List[str]

+ shuffle: bool

...

+ Options(property): Dict[str, str]

+ option\_string(property): str

+ \_add\_option(change: str): bool

+ add\_option(change: str): bool

+ edit\_option(i: int, change: str): bool

+ delete\_option(i: int): bool

+ edit\_shuffle(change: str): bool

Attributes

options contains an array of the question options

shuffle shuffle the order of options if true

Options returns a dict of the options paired with a letter as a key

option\_string returns a string of the formatted options

\_\_add\_option is the base method for adding an option

add\_option adds a text to the option array

edit\_option changes the text of the option the given index

delete\_option deletes the option at the given index

edit\_shuffle edits the shuffle attribute

MultipleResponse

...

+ answer: List[str]

...

+ add\_answer(change: str): bool

+ edit\_answer(i: int, change: str): bool

+ delete\_answer(i: int): bool

Attributes

answer contains an array of the correct answers of the options

add\_answer adds an answer to the answer array and to options if not already there

edit\_answer edits the answer text at the given index and the option if not already there

delete\_answer deletes the answer at the given index (does not delete option)

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