

Module alarm

This Module holds the code for the Alarm class along with the getter function and its other methods. It is used to represent alarms within the main app and allow actions to be carried out based on the instances data.

Classes

Alarm

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Classes

```
class Alarm (message, content, news, weather,
alarm_list)
```

A Class to represent an Alarm which will be used within the flask application

Attributes

message : str

the message the user requires to be spoken when the alarm rings

content : list

a list containing the time and date of when the alarm is due to ring

news : int

an integer of either 1 or 0 to decide if the news should be spoken when the alarm rings

weather : int

an integer of either 1 or 0 to decide if the weather should be spoken when the alarm rings

total_alarms : int

an integer of the total number of alarms that have been created, this is used to assign a unique id to the alarm

alarm_list : list

a list of all active alarms, this is used to decide if there are any coinciding alarms and hence change the priority of this alarm (newer alarms ring first and are assigned a higher priority)

Methods

get_data(): Gets relevant data of the alarm and collates it into a dictionary to be returned **ring():** Gathers the up to date information about covid data, and the news and weather if needed to create a well spoken string which will be spoken by pyttsx3 to ring the alarm. **get_seconds():** get_seconds takes the time and date of when the alarm is due to go off and the current time and date, to calculate the number of seconds until the alarm is due to ring. This integer is then returned so the alarm can be scheduled.

The init function takes all the parameters of the alarm, and is responsible for instantiating the correct alarm with the correct priority and id. :param message: str :param content: list :param news: int :param weather: int :param alarm_list: list

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Methods

```
def get_data(self)
```

Gets relevant data of the alarm and collates it into a dictionary to be returned :returns dict: Returns a dictionary holding all the relevant data of the alarm (not required in python as data belonging to an object can be directly accessed, however good practise to use it to prevent unauthorised access of data variables)

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```
def get_seconds(self)
```

get_seconds takes the time and date of when the alarm is due to go off and the current time and date, to calculate the number of seconds until the alarm is due to ring. This integer is then returned so the alarm can be scheduled. :return: int

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```
def ring(self)
```

Gathers the up to date information about covid data, and the news and weather if needed to create a well spoken string which will be spoken by pyttsx3 to ring the alarm. :return: None

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