

```

1 # Appendix C2 - topic_importer.py
2
3 import requests
4 from .tables import Topic, Subtopic
5 from .db_handler import DBHandler
6
7 class TopicImporter:
8     def __init__(self):
9         self.session = DBHandler(echo=False).session
10        self.API_URL = "https://www.gov.uk/api/content"
11
12    def make_topic(self, topic_data):
13        return Topic(title=topic_data["title"],
14                     base_path=topic_data["base_path"], web_url=topic_data["web_url"],
15                     api_url=topic_data["api_url"], description=topic_data["description"])
16    def make_subtopic(self, subtopic_data):
17        return Subtopic(title=subtopic_data["title"],
18                       base_path=subtopic_data["base_path"], web_url=subtopic_data["web_url"],
19                       api_url=subtopic_data["api_url"], description=subtopic_data["description"])
20
21    def associate_topic_subtopics(self, topic, subtopics):
22        topic.subtopics = subtopics
23
24    def run(self):
25        root = requests.get(self.API_URL + "/topic").json()
26        topics_json = root["links"]["children"]
27
28        topics = []
29        print("Importing topics and subtopics", end="", flush=True)
30        for topic_json in topics_json:
31            print('.', end="", flush=True)
32            topic = self.make_topic(topic_json)
33            topics.append(topic)
34
35            topic_base_path = topic_json["base_path"]
36            topic_data = requests.get(self.API_URL + topic_base_path).json()
37            subtopics_json = topic_data["links"]["children"]
38            subtopics = []
39            for subtopic_json in subtopics_json:
40                subtopics.append(self.make_subtopic(subtopic_json))
41            self.associate_topic_subtopics(topic, subtopics)
42
43        self.session.add_all(topics)
44        self.session.add_all(subtopics)
45        self.session.commit()
46        print("\nComplete.")
47

```