FastAPI sample project

Create project environment

```
mkdir fastapi-project
cd fastapi-project
python3 -m venv env
source env/bin/activate

pip install fastapi
pip install uvicorn
```

Create main.py

```
from fastapi import FastAPI
app = FastAPI()

@app.get("/")
def root():
    return {"Hello":"World"}
```

Checking on the brauser

```
uvicorn main:app --reload
http://localhost:8000
```

Post request

```
items = []
@app.post("/items")
def create_item(item: str):
```

```
        items.append(item)
        return items
```

Terminal

```
curl -X POST -H "Content-Type: application/json"
'http://127.0.0.1:8000/items?item=orange'
curl -X POST -H "Content-Type: application/json"
'http://127.0.0.1:8000/items?item=apple'
```

Get by ID posted items

```
from fastapi import HTTPException
@app.get("/items/{item_id}")
def get_item(item_id: int):
    if item_id < len(items):
        return items[item_id]
    else:
        return HTTPException(status_code=404, detail="Item not found")
```

In terminal

```
curl -X GET http://127.0.0.1:8000/items/0
curl -X GET http://127.0.0.1:8000/items/1
```

Get List items

```
@app.get("/items")
def list_items(limit:int=10):
    return items[0:limit]
```

Pydantic module for POST

```python
from pydantic import BaseModel

class Item(BaseModel):
  text: str = None
  is_done: bool = False



# update create post function
@app.post("/items")
def create_item(item: Item):
    items.append(item)
    return items
```

Create item in Terminal

```
curl -X POST -H "Content-Type: application/json" -d '{"text":"apple"}'
'http://127.0.0.1:8000/item'
```

Connect Item class with get and retrieve

```python
@app.get("/items", response_model=list[Item])
def list_items(limit: int = 10):
    return items[0:limit]

@app.get("/items/{item_id}", response_model=Item)
def get_item(item_id:int):
    if item_id < len(items):
        return items[item_id]
    else:
        return HTTPException(status_code=404, detail='Item not found')
```

Checking in swagger

```
localhost:8000/docs
localhost:8000/redoc
```