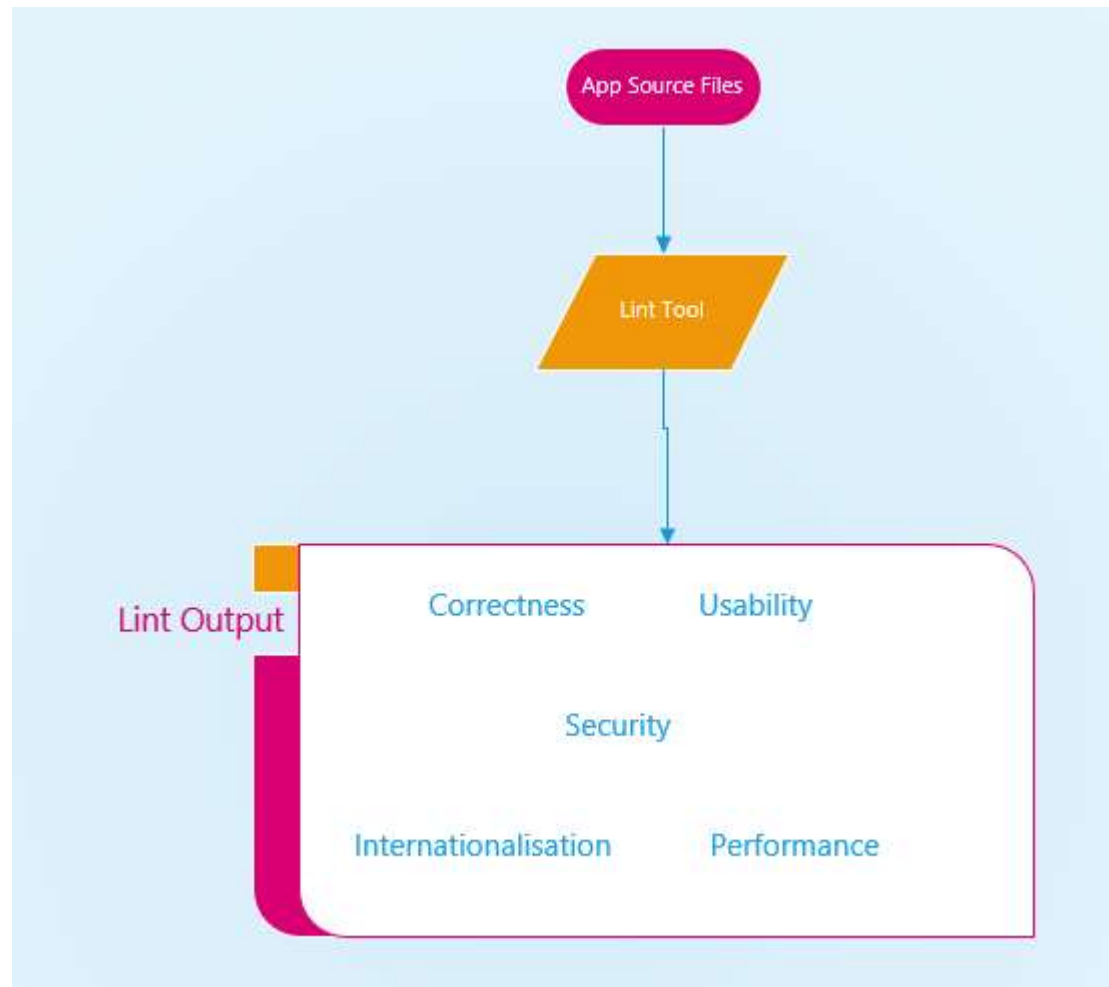


## Code improvement with lint checks.

In addition to ensuring the application meets functional requirements by building tests, it was essential to ensure that the code has no structural problems by running it through lints. Lints were used for identifying and correcting issues with the structural quality of the code. Critical improvements were made for correctness, security, performance, usability, and internationalisation.



## 1. Main (main.py)

### 1.1 Lint Output before rectification.

## Check results

Save ▾ Share

Code	Line	Column	Text
W292	62	6	no newline at end of file

```
1  import uvicorn
2
3  from fastapi import FastAPI
4  from fastapi.middleware.cors import CORSMiddleware
5  from fastapi.security import OAuth2PasswordBearer
6  from beanie import init_beanie
7  from fastapi_utils.tasks import repeat_every
8
9  from core.exception import ExceptionHandlerMiddleware
10 from db import client
11 from config import settings
12 from routers import include_routers
13 from event_handlers import register_handlers
14 from core.store import Store
15
16 oauth2_scheme = OAuth2PasswordBearer(tokenUrl="token")
17
18 app = FastAPI()
19
20 origins = [
21     "*",
22 ]
23
24 app.add_middleware(
25     CORSMiddleware,
26     allow_origins=origins,
27     allow_credentials=True,
28     allow_methods=["*"],
29     allow_headers=["*"],
30 )
31 app.add_middleware(ExceptionHandlerMiddleware)
32
33
34 @app.get("/")
35 async def root():
36     return dict(message="Hello World")
37
38
39 @app.on_event("startup")
40 async def configure_db_and_routes():
41     app.mongodb_client = client
42     app.db = client.get_default_database()
43     app.store = Store()
44
45     await init_beanie(database=app.db, document_models=settings.BEANIE_MODELS)
46
47     include_routers(app)
48     register_handlers(app)
49
50
51 @app.on_event("shutdown")
52 async def shutdown_db_client():
53     app.mongodb_client.close()
54
55
56 if __name__ == "__main__":
57     uvicorn.run(
58         "main:app",
59         host=settings.HOST,
60         reload=settings.DEBUG_MODE,
61         port=settings.PORT,
62     )
```

## 1.2 Lint output post rectification.

### PEP8 online

Check your code for PEP8 requirements

All right

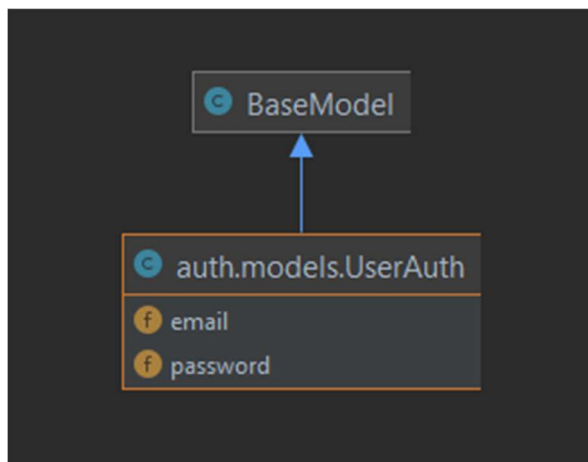
Save ▾ Share

### Your code

```
1 import uvicorn
2
3 from fastapi import FastAPI
4 from fastapi.middleware.cors import CORSMiddleware
5 from fastapi.security import OAuth2PasswordBearer
6 from beanie import init_beanie
7 from fastapi_utils.tasks import repeat_every
8
9 from core.exception import ExceptionHandlerMiddleware
10 from db import client
11 from config import settings
12 from routers import include_routers
13 from event_handlers import register_handlers
14 from core.store import Store
15
```

Check again

## 2. Models (models.py)



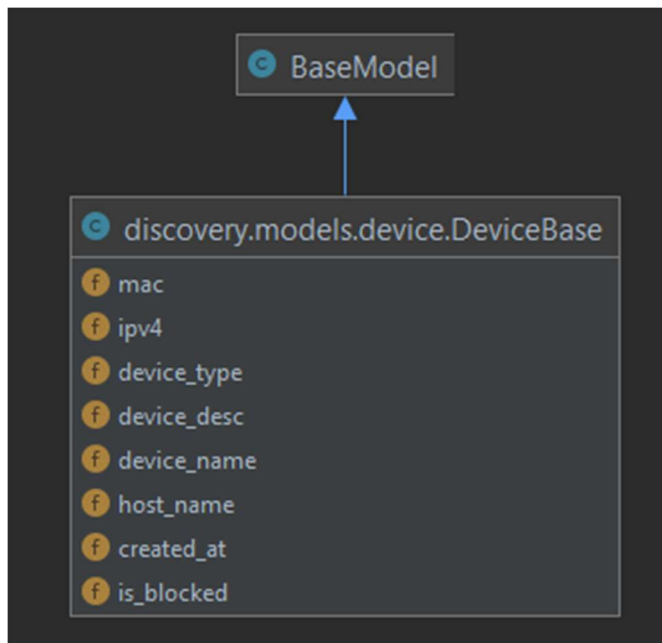
## 2.1 Lint Output before rectification.

Check results			
		<a href="#">Save</a> ▾	<a href="#">Share</a>
Code	Line	Column	Text
E701	14	10	multiple statements on one line (colon)
E701	15	13	multiple statements on one line (colon)
E701	22	10	multiple statements on one line (colon)
E701	23	14	multiple statements on one line (colon)
E701	24	13	multiple statements on one line (colon)
E701	25	21	multiple statements on one line (colon)
E701	32	7	multiple statements on one line (colon)
E701	33	14	multiple statements on one line (colon)
E701	34	11	multiple statements on one line (colon)
E701	35	14	multiple statements on one line (colon)
E701	45	10	multiple statements on one line (colon)
E701	52	14	multiple statements on one line (colon)
E701	53	20	multiple statements on one line (colon)
E701	54	23	multiple statements on one line (colon)
E701	55	11	multiple statements on one line (colon)
E701	100	17	multiple statements on one line (colon)
E701	101	15	multiple statements on one line (colon)
E701	108	10	multiple statements on one line (colon)

## 2.2 Lint output post rectification.

No rectification was performed on the code.

### 3. Device(device.py)



3.1 Lint Output before rectifications.

## Check results

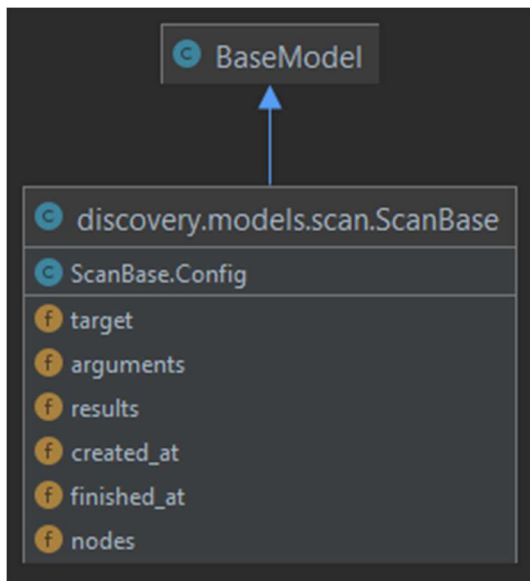
[Save](#) [Share](#)

Code	Line	Column	Text
E701	13	8	multiple statements on one line (colon)
E701	14	9	multiple statements on one line (colon)
E701	15	16	multiple statements on one line (colon)
E701	16	16	multiple statements on one line (colon)
E701	17	16	multiple statements on one line (colon)
E701	18	14	multiple statements on one line (colon)
E701	19	15	multiple statements on one line (colon)
E701	20	15	multiple statements on one line (colon)
E701	27	7	multiple statements on one line (colon)
E701	38	7	multiple statements on one line (colon)
E701	48	9	multiple statements on one line (colon)
E701	49	8	multiple statements on one line (colon)
E701	50	9	multiple statements on one line (colon)
E701	57	7	multiple statements on one line (colon)
E701	68	7	multiple statements on one line (colon)
E701	78	9	multiple statements on one line (colon)
E701	79	8	multiple statements on one line (colon)

3.2 Lint output post rectifications.

No rectification was performed on the code.

#### 4. Scan(scan.py)



4.1 Lint Output before rectifications.

### Check results

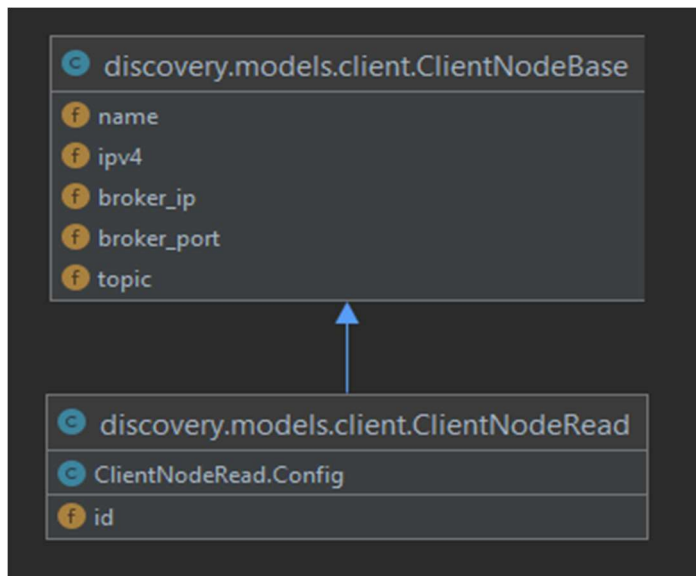
[Save](#) [Share](#)

Code	Line	Column	Text
E701	13	11	multiple statements on one line (colon)
E701	14	14	multiple statements on one line (colon)
E701	15	12	multiple statements on one line (colon)
E701	16	15	multiple statements on one line (colon)
E701	17	16	multiple statements on one line (colon)
E701	18	10	multiple statements on one line (colon)
E701	28	7	multiple statements on one line (colon)
E701	39	7	multiple statements on one line (colon)
E701	49	9	multiple statements on one line (colon)
E701	50	8	multiple statements on one line (colon)
E701	51	9	multiple statements on one line (colon)
E701	58	7	multiple statements on one line (colon)
E701	69	7	multiple statements on one line (colon)
E701	79	9	multiple statements on one line (colon)
E701	80	8	multiple statements on one line (colon)

4.2 Lint output post rectifications.

No rectification was performed on the code.

## 5. Client Node(client.py)



### 5.1 Lint Output before rectifications.

#### Check results

[Save](#) [Share](#)

Code	Line	Column	Text
E701	12	9	multiple statements on one line (colon)
E701	13	9	multiple statements on one line (colon)
E701	14	14	multiple statements on one line (colon)
E701	15	16	multiple statements on one line (colon)
E701	16	10	multiple statements on one line (colon)
E701	23	7	multiple statements on one line (colon)
E701	34	7	multiple statements on one line (colon)
E701	44	9	multiple statements on one line (colon)
E701	45	8	multiple statements on one line (colon)
E701	46	9	multiple statements on one line (colon)
E701	53	7	multiple statements on one line (colon)
E701	64	7	multiple statements on one line (colon)
E701	74	9	multiple statements on one line (colon)
E701	75	8	multiple statements on one line (colon)

### 5.2 Lint output post rectifications.

No rectification was performed on the code.

