

```
database.py × models.py × main.py × schemas.py ×
1 from sqlalchemy import create_engine
2 from sqlalchemy.ext.declarative import declarative_base
3 from sqlalchemy.orm import sessionmaker
4
5 DATABASE_URL = "postgresql://postgres:144233377@localhost/escola"
6
7 engine = create_engine(DATABASE_URL)
8 SessionLocal = sessionmaker(autocommit=False, autoflush=False, bind=engine)
9
10 Base = declarative_base()
11
12
```

```
database.py × models.py × main.py × schemas.py ×
1 from sqlalchemy import \
2     Column, Integer, String, ForeignKey
3
4 from database import Base
5
6
7 class Estudante(Base):
8     __tablename__ = 'estudantes'
9
10     id = Column(Integer, primary_key=True, index=True)
11     nome = Column(String, index=True)
12     idade = Column(Integer)
13     email = Column(String, unique=True, index=True)
14
15
16 class Matricula(Base):
17     __tablename__ = 'matriculas'
18
19     id = Column(Integer, primary_key=True, index=True)
20     estudante_id = Column(Integer, ForeignKey('estudantes.id'), nullable=False)
21     curso_nome = Column(String, index=True)
22     ano = Column(Integer)
23
```

```
database.py × models.py × main.py × schemas.py ×
1 from pydantic import BaseModel
2
3 class EstudanteBase(BaseModel):
4     nome: str
5     idade: int
6     email: str
7
8
9 class EstudanteCreate(EstudanteBase):
10     pass
11
12 class EstudanteResponse(EstudanteBase):
13     id: int
14
15     class Config:
16         from_attributes = True
17
18
19 class MatriculaBase(BaseModel):
20     estudante_id: int
21     curso_nome: str
22     ano: int
23
24
25 class MatriculaCreate(MatriculaBase):
26     pass
27
28 class MatriculaResponse(MatriculaBase):
29     id: int
30
31     class Config:
32         from_attributes = True
```

```
database.py × models.py × main.py × schemas.py ×
1 from fastapi import FastAPI, Depends, HTTPException
2 from sqlalchemy.orm import Session
3 from typing import List
4 import models
5 import schemas
6 from database import SessionLocal, engine
7
8 # criar as tabelas no postgres caso nao existam
9 models.Base.metadata.create_all(bind=engine)
10 app = FastAPI()
11
12
13 4 usages new *
14 def get_db():
15     db = SessionLocal()
16     try:
17         yield db
18     finally:
19         db.close()
20
21 # criar as rotas:
```

```
new *
2 @app.post(path: "/estudantes/",
3           response_model=schemas.EstudanteResponse)
4 def criar_estudante(
5     estudante: schemas.EstudanteCreate,
6     db: Session = Depends(get_db)):
7
8     db_estudante = models.Estudante(nome=estudante.nome,
9                                     idade=estudante.idade,
10                                    email=estudante.email)
11
12     db.add(db_estudante)
13     db.commit()
14     db.refresh(db_estudante)
15     return db_estudante
16
17 new *
18 @app.get(path: "/estudantes/",
19          response_model=List[schemas.EstudanteResponse])
20 def ler_estudantes(skip: int = 0,
21                    limit: int = 10,
22                    db: Session = Depends(get_db)):
23     estudantes = db.query(models.Estudante).offset(skip).limit(limit).all()
24     return estudantes
25
```

```

new *
@app.post(path: "/matriculas/",
         response_model=schemas.MatriculaResponse)
def criar_matricula(
    matricula: schemas.MatriculaCreate,
    db: Session = Depends(get_db)):
    db_matricula = models.Matricula(estudante_id=matricula.estudante_id,
                                    curso_nome=matricula.curso_nome,
                                    ano=matricula.ano)

    db.add(db_matricula)
    db.commit()
    db.refresh(db_matricula)
    return db_matricula

new *
@app.get(path: "/matriculas/",
        response_model=List[schemas.MatriculaResponse])
def ler_matriculas(skip: int = 0,
                   limit: int = 10,
                   db: Session = Depends(get_db)):
    matriculas = db.query(models.Matricula).offset(skip).limit(limit).all()
    return matriculas

```