

**hospital-hms\db.py**

```
1 """
2 Simple Oracle DB helper using `oracledb`.
3 - Reads env vars: ORACLE_USER, ORACLE_PASSWORD, ORACLE_DSN
4 - Provides `get_connection()` and `rows_to_dicts()` helpers
5 """
6 import os
7
8 try:
9     import oracledb
10 except Exception as e:
11     raise RuntimeError("Install `oracledb` and ensure Oracle Instant Client / Thin mode is available") from e
12
13
14 def get_connection():
15     """Return a new Oracle connection using env variables.
16     ORACLE_DSN can be: host:port/service_name or a TNS name depending on your environment.
17     """
18     user = os.environ.get("ORACLE_USER")
19     password = os.environ.get("ORACLE_PASSWORD")
20     dsn = os.environ.get("ORACLE_DSN")
21
22     if not (user and password and dsn):
23         raise RuntimeError("Missing ORACLE_USER/ORACLE_PASSWORD/ORACLE_DSN environment variables")
24
25     # Basic connect; you can replace with pooling in production
26     conn = oracledb.connect(user=user, password=password, dsn=dsn)
27     return conn
28
29
30 def rows_to_dicts(cursor):
31     """Convert cursor results to list of dicts using cursor.description"""
32     cols = [c[0].lower() for c in cursor.description]
33     return [dict(zip(cols, row)) for row in cursor.fetchall()]
34
```