

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<testsuites>
  <testsuite name="pytest" errors="2" failures="3" skipped="0" tests="9" time="0.831" timestamp="2024-12-31T20:00:49.038949+08:00"
    hostname="LAPTOP-QQOUPES4">
    <testcase classname="test_authentication" name="test_account_lockout" file="test_authentication.py" line="40" time="0.021">
      <system-out>----- Captured Log ----- WARNING root:authentication_controller.py:66
      lockuser account locked due to multiple failed attempts. ----- Captured Out -----
      Invalid username or password. You have 2 attempt(s) remaining. Invalid username or password. You have 1 attempt(s) remaining. Account
      locked due to multiple failed attempts. Please try again after 5 minutes. Account is locked. Please try again after 4 minute(s) and 59
      second(s). User 'lockuser' account has been unlocked. </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_authentication" name="test_invalid_login" file="test_authentication.py" line="36" time="0.017">
      <system-out>----- Captured Log ----- ----- Captured
      Out ----- Invalid username or password. </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_authentication" name="test_valid_login" file="test_authentication.py" line="23" time="0.005">
      <failure message="OSError: pytest: reading from stdin while output is captured! Consider using `s`.">auth_controller =
      <controllers.authentication_controller.AuthenticationController object at 0x000001A126D869D0> def test_valid_login(auth_controller):
      user_service = auth_controller.user_service username = 'testuser' password_plain = 'Test@1234' # Ensure the test user exists if not
      user_service.get_user_by_username(username): # Encrypt the password encrypted_password = encrypt_password(password_plain)
      user_service.add_user(Customer(username, encrypted_password, 'COMPANY123')) > user = auth_controller.login(username, password_plain)
      test_authentication.py:33:
      controllers\authentication_controller.py:51: in login if self.perform_mfa(user): controllers\authentication_controller.py:80: in
      perform_mfa input_code = input("Enter the MFA code sent to your registered device: ")
      self = <_pytest.capture.DontReadFromInput object at 0x000001A125149340> size = -1 def read(self, size: int =
      -1) -> str: > raise OSError( "pytest: reading from stdin while output is captured! Consider using `s`." ) E OSError: pytest: reading from
      stdin while output is captured! Consider using `s`. C:\Program Files (x86)\Microsoft Visual Studio\Shared\Python39_64\lib\site-
      packages\_pytest\capture.py:209: OSError</failure>
      <system-out>----- Captured Log ----- ----- Captured
      Out ----- Enter the MFA code sent to your registered device: </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_order" name="test_list_customer_orders" file="test_order.py" line="53" time="0.016">
      <error message="failed on setup with "py.error.EEXIST: [File exists]: mkdir('C:\\Users\\Helen Siu\\AppData\\Local\\Temp\\pytest-of-Helen
      Siu\\pytest-5\\test_list_customer_orders0\\data',)">E FileExistsError: [WinError 183] Cannot create a file when that file already exists:
      'C:\\Users\\Helen Siu\\AppData\\Local\\Temp\\pytest-of-Helen Siu\\pytest-5\\test_list_customer_orders0\\data' All traceback entries are
      hidden. Pass `--full-trace` to see hidden and internal frames. During handling of the above exception, another exception occurred: tmpdir
      = local('C:\\Users\\Helen Siu\\AppData\\Local\\Temp\\pytest-of-Helen Siu\\pytest-5\\test_list_customer_orders0') @pytest.fixture def
      product_service(tmpdir): > data_dir = tmpdir.mkdir("data") test_order.py:27:
      self = local('C:\\Users\\Helen Siu\\AppData\\Local\\Temp\\pytest-of-Helen Siu\\pytest-5\\test_list_customer_orders0')
      args = ('data',) p = local('C:\\Users\\Helen Siu\\AppData\\Local\\Temp\\pytest-of-Helen Siu\\pytest-5\\test_list_customer_orders0\\data')
      def mkdir(self, *args): """Create & return the directory joined with args.""" p = self.join(*args) > error.checked_call(os.mkdir,
      os.fspath(p)) E py.error.EEXIST: [File exists]: mkdir('C:\\Users\\Helen Siu\\AppData\\Local\\Temp\\pytest-of-Helen Siu\\pytest-
```

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5\\test_list_customer_orders0\\data',) C:\Program Files (x86)\Microsoft Visual Studio\Shared\Python39_64\lib\site-
packages\_pytest\_py\path.py:889: EEXIST</error>
<system-out>----- Captured Log ----- Captured
Out ----- </system-out>
<system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_order" name="test_place_order" file="test_order.py" line="38" time="0.009">
  <error message="failed on setup with "py.error.EEXIST: [File exists]: mkdir('C:\\Users\\Helen Siu\\AppData\\Local\\Temp\\pytest-of-Helen
  Siu\\pytest-5\\test_place_order0\\data',)">E FileExistsError: [WinError 183] Cannot create a file when that file already exists:
  'C:\\Users\\Helen Siu\\AppData\\Local\\Temp\\pytest-of-Helen Siu\\pytest-5\\test_place_order0\\data' All traceback entries are hidden.
  Pass `--full-trace` to see hidden and internal frames. During handling of the above exception, another exception occurred: tmpdir =
  local('C:\\Users\\Helen Siu\\AppData\\Local\\Temp\\pytest-of-Helen Siu\\pytest-5\\test_place_order0') @pytest.fixture def
  product_service(tmpdir): > data_dir = tmpdir.mkdir("data") test_order.py:27: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
  _ _ _ _ _ _ _ _ _ _ self = local('C:\\Users\\Helen Siu\\AppData\\Local\\Temp\\pytest-of-Helen Siu\\pytest-5\\test_place_order0') args =
  ('data',) p = local('C:\\Users\\Helen Siu\\AppData\\Local\\Temp\\pytest-of-Helen Siu\\pytest-5\\test_place_order0\\data') def mkdir(self,
  *args): """Create & return the directory joined with args.""" p = self.join(*args) > error.checked_call(os.mkdir, os.fspath(p)) E
  py.error.EEXIST: [File exists]: mkdir('C:\\Users\\Helen Siu\\AppData\\Local\\Temp\\pytest-of-Helen Siu\\pytest-
  5\\test_place_order0\\data',) C:\Program Files (x86)\Microsoft Visual Studio\Shared\Python39_64\lib\site-packages\_pytest\_py\path.py:889:
  EEXIST</error>
  <system-out>----- Captured Log ----- Captured
  Out ----- </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_product" name="test_add_product" file="test_product.py" line="24" time="0.008">
  <failure message="assert False is True">product_service = <services.product_service.ProductService object at 0x000001A126D86CA0> def
  test_add_product(product_service): product = Product('1', "Shampoo", "Hair Care", 9.99, 100) added = product_service.add_product(product)
  > assert added is True E assert False is True test_product.py:28: AssertionError</failure>
  <system-out>----- Captured Log ----- Captured
  Out ----- Product with ID '1' already exists. </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_product" name="test_delete_product" file="test_product.py" line="37" time="0.011">
  <system-out>----- Captured Log ----- Captured
  Out ----- </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_product" name="test_list_products" file="test_product.py" line="43" time="0.007">
  <failure message="assert 4 == 1 + where 4 = len([<models.product.Product object at 0x000001A127A97D90>, <models.product.Product object at
  0x000001A127A97F10>, <models.product.Product object at 0x000001A127AABB80>, <models.product.Product object at
  0x000001A127AABEB0>])">product_service = <services.product_service.ProductService object at 0x000001A127A97490> def
  test_list_products(product_service): product_service.add_product(Product('4', "Hair Spray", "Styling", 6.99, 80)) products =
  product_service.products > assert len(products) == 1 E assert 4 == 1 E + where 4 = len([<models.product.Product object at
  0x000001A127A97D90>, <models.product.Product object at 0x000001A127A97F10>, <models.product.Product object at 0x000001A127AABB80>,
  <models.product.Product object at 0x000001A127AABEB0>]) test_product.py:47: AssertionError</failure>
  <system-out>----- Captured Log ----- Captured
  Out ----- Product with ID '4' already exists. </system-out>
  <system-err>----- Captured Err ----- </system-err>

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</testcase>
<testcase classname="test_product" name="test_update_stock" file="test_product.py" line="30" time="0.008">
  <system-out>----- Captured Log ----- Captured
    Out ----- Product with ID '2' already exists. </system-out>
    <system-err>----- Captured Err ----- </system-err>
  </testcase>
</testsuite>
</testsuites>
```

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<testsuites>
  <testsuite name="pytest" errors="0" failures="1" skipped="0" tests="10" time="7.124" timestamp="2025-01-07T18:37:33.961815+08:00"
    hostname="LAPTOP-QQOUPES4">
    <testcase classname="test_authentication.TestAuthentication" name="test_account_lockout" file="test_authentication.py" line="54"
      time="2.997">
      <system-out>----- Captured Log ----- WARNING root:authentication_controller.py:64
        lockuser account locked due to multiple failed attempts. ----- Captured Out -----
        Invalid username or password. You have 2 attempt(s) remaining. Invalid username or password. You have 1 attempt(s) remaining. Account
        locked due to multiple failed attempts. Please try again after 5 minutes. Account is locked. Please try again after 4 minute(s) and 59
        second(s). </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_authentication.TestAuthentication" name="test_invalid_login" file="test_authentication.py" line="47" time="0.016">
      <system-out>----- Captured Log ----- Captured
        Out ----- Invalid username or password. </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_authentication.TestAuthentication" name="test_valid_login" file="test_authentication.py" line="27" time="1.189">
      <system-out>----- Captured Log ----- Captured
        Out ----- </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_linter" name="test_flake8" file="test_linter.py" line="3" time="2.061">
      <failure message="Failed: Flake8 lint errors: .\IMS.py:1:1: W391 blank line at end of file .\api\company_validation_api.py:6:68: W291
        trailing whitespace .\api\company_validation_api.py:12:1: E302 expected 2 blank lines, found 1 .\api\company_validation_api.py:20:1: E305
        expected 2 blank lines after class or function definition, found 1 .\api\company_validation_api.py:22:1: W391 blank line at end of file
        .\controllers\authentication_controller.py:5:14: W291 trailing whitespace .\controllers\authentication_controller.py:6:1: F401
        'models.user.Admin' imported but unused .\controllers\authentication_controller.py:8:1: E302 expected 2 blank lines, found 1
        .\controllers\authentication_controller.py:15:80: E501 line too long (96 > 79 characters)
        .\controllers\authentication_controller.py:16:80: E501 line too long (85 > 79 characters)
        .\controllers\authentication_controller.py:31:80: E501 line too long (84 > 79 characters)
        .\controllers\authentication_controller.py:33:80: E501 line too long (116 > 79 characters)
        .\controllers\authentication_controller.py:59:80: E501 line too long (111 > 79 characters)
        .\controllers\authentication_controller.py:64:80: E501 line too long (98 > 79 characters)
        .\controllers\authentication_controller.py:65:80: E501 line too long (139 > 79 characters)
        .\controllers\authentication_controller.py:78:80: E501 line too long (81 > 79 characters)
        .\controllers\authentication_controller.py:88:80: E501 line too long (81 > 79 characters)
        .\controllers\authentication_controller.py:91:80: E501 line too long (116 > 79 characters)
        .\controllers\authentication_controller.py:92:80: E501 line too long (80 > 79 characters)
        .\controllers\authentication_controller.py:95:80: E501 line too long (99 > 79 characters)
        .\controllers\authentication_controller.py:96:80: E501 line too long (86 > 79 characters)
        .\controllers\authentication_controller.py:105:80: E501 line too long (101 > 79 characters)
        .\controllers\authentication_controller.py:106:80: E501 line too long (81 > 79 characters)
        .\controllers\authentication_controller.py:111:80: E501 line too long (81 > 79 characters)">
    </testcase>
  </testsuite>
</testsuites>
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.\controllers\authentication_controller.py:114:80: E501 line too long (91 > 79 characters) .\controllers\order_controller.py:1:1: F401
'services.order_service.OrderService' imported but unused .\controllers\order_controller.py:2:1: F401
'services.product_service.ProductService' imported but unused .\controllers\order_controller.py:5:1: E302 expected 2 blank lines, found 1
.\controllers\order_controller.py:18:80: E501 line too long (80 > 79 characters) .\controllers\order_controller.py:27:80: E501 line too
long (91 > 79 characters) .\controllers\product_controller.py:1:1: F401 'services.product_service.ProductService' imported but unused
.\controllers\product_controller.py:4:1: E302 expected 2 blank lines, found 1 .\controllers\product_controller.py:16:80: E501 line too
long (92 > 79 characters) .\main.py:22:1: E302 expected 2 blank lines, found 1 .\main.py:39:1: E305 expected 2 blank lines after class or
function definition, found 1 .\models\order.py:4:1: E302 expected 2 blank lines, found 1 .\models\order.py:9:80: E501 line too long (83 >
79 characters) .\models\order.py:12:80: E501 line too long (85 > 79 characters) .\models\user.py:1:14: W291 trailing whitespace
.\models\user.py:3:1: E302 expected 2 blank lines, found 1 .\models\user.py:14:80: E501 line too long (107 > 79 characters)
.\models\user.py:24:80: E501 line too long (92 > 79 characters) .\models\user.py:28:1: E302 expected 2 blank lines, found 1
.\models\user.py:30:80: E501 line too long (96 > 79 characters) .\models\user.py:31:80: E501 line too long (135 > 79 characters)
.\models\user.py:33:1: E302 expected 2 blank lines, found 1 .\models\user.py:35:80: E501 line too long (96 > 79 characters)
.\models\user.py:36:80: E501 line too long (135 > 79 characters) .\models\user.py:38:1: E302 expected 2 blank lines, found 1
.\models\user.py:44:80: E501 line too long (108 > 79 characters) .\models\user.py:45:80: E501 line too long (138 > 79 characters)
.\populate_data.py:3:80: E501 line too long (80 > 79 characters) .\populate_data.py:7:1: F401 'sys' imported but unused
.\populate_data.py:14:1: E302 expected 2 blank lines, found 1 .\populate_data.py:26:80: E501 line too long (97 > 79 characters)
.\populate_data.py:27:80: E501 line too long (97 > 79 characters) .\populate_data.py:28:80: E501 line too long (103 > 79 characters)
.\populate_data.py:31:80: E501 line too long (120 > 79 characters) .\populate_data.py:32:80: E501 line too long (120 > 79 characters)
.\populate_data.py:33:80: E501 line too long (157 > 79 characters) .\populate_data.py:42:1: E302 expected 2 blank lines, found 1
.\populate_data.py:50:80: E501 line too long (102 > 79 characters) .\populate_data.py:51:80: E501 line too long (105 > 79 characters)
.\populate_data.py:52:80: E501 line too long (106 > 79 characters) .\populate_data.py:53:80: E501 line too long (108 > 79 characters)
.\populate_data.py:54:80: E501 line too long (105 > 79 characters) .\populate_data.py:62:1: E305 expected 2 blank lines after class or
function definition, found 1 .\services\order_service.py:5:1: E302 expected 2 blank lines, found 1 .\services\order_service.py:66:80: E501
line too long (95 > 79 characters) .\services\product_service.py:5:1: E302 expected 2 blank lines, found 1
.\services\product_service.py:7:80: E501 line too long (80 > 79 characters) .\services\product_service.py:11:80: E501 line too long (86 >
79 characters) .\services\product_service.py:18:80: E501 line too long (81 > 79 characters) .\services\product_service.py:59:80: E501 line
too long (81 > 79 characters) .\services\user_service.py:5:1: E302 expected 2 blank lines, found 1 .\services\user_service.py:7:80: E501
line too long (89 > 79 characters) .\services\user_service.py:11:80: E501 line too long (90 > 79 characters)
.\services\user_service.py:63:80: E501 line too long (112 > 79 characters) .\test_authentication.py:2:1: F401 'os' imported but unused
.\test_authentication.py:10:1: E302 expected 2 blank lines, found 1 .\test_authentication.py:25:1: E302 expected 2 blank lines, found 1
.\test_authentication.py:41:80: E501 line too long (93 > 79 characters) .\test_authentication.py:42:80: E501 line too long (84 > 79
characters) .\test_authentication.py:57:80: E501 line too long (82 > 79 characters) .\test_authentication.py:64:80: E501 line too long (93
> 79 characters) .\test_authentication.py:65:80: E501 line too long (84 > 79 characters) .\test_authentication.py:74:48: W292 no newline
at end of file .\test_conftest.py:2:1: F401 'os' imported but unused .\test_conftest.py:11:80: E501 line too long (106 > 79 characters)
.\test_conftest.py:13:80: E501 line too long (109 > 79 characters) .\test_conftest.py:14:80: E501 line too long (118 > 79 characters)
.\test_conftest.py:15:80: E501 line too long (83 > 79 characters) .\test_conftest.py:18:1: E302 expected 2 blank lines, found 1
.\test_conftest.py:24:1: E302 expected 2 blank lines, found 1 .\test_conftest.py:30:1: E302 expected 2 blank lines, found 1
.\test_conftest.py:36:1: E302 expected 2 blank lines, found 1 .\test_conftest.py:40:1: E302 expected 2 blank lines, found 1
.\test_conftest.py:44:1: E302 expected 2 blank lines, found 1 .\test_conftest.py:47:1: W391 blank line at end of file
.\test_linter.py:4:1: E302 expected 2 blank lines, found 1 .\test_linter.py:17:63: W292 no newline at end of file .\test_order.py:2:1:
F401 'uuid' imported but unused .\test_order.py:4:1: F401 'models.order.Order' imported but unused .\test_order.py:10:1: E302 expected 2
blank lines, found 1 .\test_order.py:17:1: E302 expected 2 blank lines, found 1 .\test_order.py:32:1: E302 expected 2 blank lines, found 1
.\test_order.py:36:1: E302 expected 2 blank lines, found 1 .\test_order.py:53:1: E302 expected 2 blank lines, found 1
.\test_order.py:65:61: W292 no newline at end of file .\test_product.py:7:1: E302 expected 2 blank lines, found 1 .\test_product.py:10:80:
E501 line too long (80 > 79 characters) .\test_product.py:25:1: E302 expected 2 blank lines, found 1 .\test_product.py:32:1: E302 expected
2 blank lines, found 1 .\test_product.py:34:80: E501 line too long (90 > 79 characters) .\test_product.py:40:1: E302 expected 2 blank
```



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lines, found 1 .\test_product.py:42:80: E501 line too long (85 > 79 characters) .\test_product.py:47:1: E302 expected 2 blank lines, found
1 .\test_product.py:53:80: E501 line too long (87 > 79 characters) .\test_product.py:57:48: W292 no newline at end of file
.\unlock_admin.py:1:1: F401 'os' imported but unused .\unlock_admin.py:2:1: F401 'sys' imported but unused .\unlock_admin.py:3:1: F401
'json' imported but unused .\unlock_admin.py:6:1: E302 expected 2 blank lines, found 1 .\unlock_admin.py:17:1: E305 expected 2 blank lines
after class or function definition, found 1 .\views\cli_view.py:1:1: F401 'controllers.authentication_controller.AuthenticationController'
imported but unused .\views\cli_view.py:2:1: F401 'controllers.product_controller.ProductController' imported but unused
.\views\cli_view.py:3:1: F401 'controllers.order_controller.OrderController' imported but unused .\views\cli_view.py:5:1: E302 expected 2
blank lines, found 1 .\views\cli_view.py:60:80: E501 line too long (82 > 79 characters) .\views\cli_view.py:119:80: E501 line too long
(109 > 79 characters) .\views\cli_view.py:119:110: W291 trailing whitespace .\views\cli_view.py:120:80: E501 line too long (92 > 79
characters) .\views\cli_view.py:150:80: E501 line too long (92 > 79 characters) .\views\cli_view.py:218:80: E501 line too long (94 > 79
characters) .\views\cli_view.py:236:80: E501 line too long (125 > 79 characters) .\views\cli_view.py:240:80: E501 line too long (89 > 79
characters) .\views\cli_view.py:254:80: E501 line too long (83 > 79 characters) .\views\cli_view.py:257:80: E501 line too long (112 > 79
characters) .\views\cli_view.py:260:80: E501 line too long (99 > 79 characters) .\views\cli_view.py:262:80: E501 line too long (105 > 79
characters)">@pytest.mark.linter def test_flake8(): """ Runs Flake8 lint checks on the entire project. Fails if any stylistic or syntax
issues are found. """ # Use python -m flake8 instead of direct flake8 cmd = ["python", "-m", "flake8", "."] result = subprocess.run(cmd,
capture_output=True, text=True) if result.returncode != 0: combined_output = result.stdout + "\n" + result.stderr > pytest.fail(f"Flake8
lint errors:\n{combined_output}") E Failed: Flake8 lint errors: E .\IMS.py:1:1: W391 blank line at end of file E
.\api\company_validation_api.py:6:68: W291 trailing whitespace E .\api\company_validation_api.py:12:1: E302 expected 2 blank lines, found
1 E .\api\company_validation_api.py:20:1: E305 expected 2 blank lines after class or function definition, found 1 E
.\api\company_validation_api.py:22:1: W391 blank line at end of file E .\controllers\authentication_controller.py:5:14: W291 trailing
whitespace E .\controllers\authentication_controller.py:6:1: F401 'models.user.Admin' imported but unused E
.\controllers\authentication_controller.py:8:1: E302 expected 2 blank lines, found 1 E .\controllers\authentication_controller.py:15:80:
E501 line too long (96 > 79 characters) E .\controllers\authentication_controller.py:16:80: E501 line too long (85 > 79 characters) E
.\controllers\authentication_controller.py:31:80: E501 line too long (84 > 79 characters) E
.\controllers\authentication_controller.py:33:80: E501 line too long (116 > 79 characters) E
.\controllers\authentication_controller.py:59:80: E501 line too long (111 > 79 characters) E
.\controllers\authentication_controller.py:64:80: E501 line too long (98 > 79 characters) E
.\controllers\authentication_controller.py:65:80: E501 line too long (139 > 79 characters) E
.\controllers\authentication_controller.py:78:80: E501 line too long (81 > 79 characters) E
.\controllers\authentication_controller.py:88:80: E501 line too long (81 > 79 characters) E
.\controllers\authentication_controller.py:91:80: E501 line too long (116 > 79 characters) E
.\controllers\authentication_controller.py:92:80: E501 line too long (80 > 79 characters) E
.\controllers\authentication_controller.py:95:80: E501 line too long (99 > 79 characters) E
.\controllers\authentication_controller.py:96:80: E501 line too long (86 > 79 characters) E
.\controllers\authentication_controller.py:105:80: E501 line too long (101 > 79 characters) E
.\controllers\authentication_controller.py:106:80: E501 line too long (81 > 79 characters) E
.\controllers\authentication_controller.py:111:80: E501 line too long (81 > 79 characters) E
.\controllers\authentication_controller.py:114:80: E501 line too long (91 > 79 characters) E .\controllers\order_controller.py:1:1: F401
'services.order_service.OrderService' imported but unused E .\controllers\order_controller.py:2:1: F401
'services.product_service.ProductService' imported but unused E .\controllers\order_controller.py:5:1: E302 expected 2 blank lines, found
1 E .\controllers\order_controller.py:18:80: E501 line too long (80 > 79 characters) E .\controllers\order_controller.py:27:80: E501 line
too long (91 > 79 characters) E .\controllers\product_controller.py:1:1: F401 'services.product_service.ProductService' imported but
unused E .\controllers\product_controller.py:4:1: E302 expected 2 blank lines, found 1 E .\controllers\product_controller.py:16:80: E501
line too long (92 > 79 characters) E .\main.py:22:1: E302 expected 2 blank lines, found 1 E .\main.py:39:1: E305 expected 2 blank lines
after class or function definition, found 1 E .\models\order.py:4:1: E302 expected 2 blank lines, found 1 E .\models\order.py:9:80: E501
line too long (83 > 79 characters) E .\models\order.py:12:80: E501 line too long (85 > 79 characters) E .\models\user.py:1:14: W291
trailing whitespace E .\models\user.py:3:1: E302 expected 2 blank lines, found 1 E .\models\user.py:14:80: E501 line too long (107 > 79

```

characters) E .\models\user.py:24:80: E501 line too long (92 > 79 characters) E .\models\user.py:28:1: E302 expected 2 blank lines, found 1 E .\models\user.py:30:80: E501 line too long (96 > 79 characters) E .\models\user.py:31:80: E501 line too long (135 > 79 characters) E .\models\user.py:33:1: E302 expected 2 blank lines, found 1 E .\models\user.py:35:80: E501 line too long (96 > 79 characters) E .\models\user.py:36:80: E501 line too long (135 > 79 characters) E .\models\user.py:38:1: E302 expected 2 blank lines, found 1 E .\models\user.py:44:80: E501 line too long (108 > 79 characters) E .\models\user.py:45:80: E501 line too long (138 > 79 characters) E .\populate_data.py:3:80: E501 line too long (80 > 79 characters) E .\populate_data.py:7:1: F401 'sys' imported but unused E .\populate_data.py:14:1: E302 expected 2 blank lines, found 1 E .\populate_data.py:26:80: E501 line too long (97 > 79 characters) E .\populate_data.py:27:80: E501 line too long (97 > 79 characters) E .\populate_data.py:28:80: E501 line too long (103 > 79 characters) E .\populate_data.py:31:80: E501 line too long (120 > 79 characters) E .\populate_data.py:32:80: E501 line too long (120 > 79 characters) E .\populate_data.py:33:80: E501 line too long (157 > 79 characters) E .\populate_data.py:42:1: E302 expected 2 blank lines, found 1 E .\populate_data.py:50:80: E501 line too long (102 > 79 characters) E .\populate_data.py:51:80: E501 line too long (105 > 79 characters) E .\populate_data.py:52:80: E501 line too long (106 > 79 characters) E .\populate_data.py:53:80: E501 line too long (108 > 79 characters) E .\populate_data.py:54:80: E501 line too long (105 > 79 characters) E .\populate_data.py:62:1: E305 expected 2 blank lines after class or function definition, found 1 E .\services\order_service.py:5:1: E302 expected 2 blank lines, found 1 E .\services\order_service.py:66:80: E501 line too long (95 > 79 characters) E .\services\product_service.py:5:1: E302 expected 2 blank lines, found 1 E .\services\product_service.py:7:80: E501 line too long (80 > 79 characters) E .\services\product_service.py:11:80: E501 line too long (86 > 79 characters) E .\services\product_service.py:18:80: E501 line too long (81 > 79 characters) E .\services\product_service.py:59:80: E501 line too long (81 > 79 characters) E .\services\user_service.py:5:1: E302 expected 2 blank lines, found 1 E .\services\user_service.py:7:80: E501 line too long (89 > 79 characters) E .\services\user_service.py:11:80: E501 line too long (90 > 79 characters) E .\services\user_service.py:63:80: E501 line too long (112 > 79 characters) E .\test_authentication.py:2:1: F401 'os' imported but unused E .\test_authentication.py:10:1: E302 expected 2 blank lines, found 1 E .\test_authentication.py:25:1: E302 expected 2 blank lines, found 1 E .\test_authentication.py:41:80: E501 line too long (93 > 79 characters) E .\test_authentication.py:42:80: E501 line too long (84 > 79 characters) E .\test_authentication.py:57:80: E501 line too long (82 > 79 characters) E .\test_authentication.py:64:80: E501 line too long (93 > 79 characters) E .\test_authentication.py:65:80: E501 line too long (84 > 79 characters) E .\test_authentication.py:74:48: W292 no newline at end of file E .\test_conftest.py:2:1: F401 'os' imported but unused E .\test_conftest.py:11:80: E501 line too long (106 > 79 characters) E .\test_conftest.py:13:80: E501 line too long (109 > 79 characters) E .\test_conftest.py:14:80: E501 line too long (118 > 79 characters) E .\test_conftest.py:15:80: E501 line too long (83 > 79 characters) E .\test_conftest.py:18:1: E302 expected 2 blank lines, found 1 E .\test_conftest.py:24:1: E302 expected 2 blank lines, found 1 E .\test_conftest.py:30:1: E302 expected 2 blank lines, found 1 E .\test_conftest.py:36:1: E302 expected 2 blank lines, found 1 E .\test_conftest.py:40:1: E302 expected 2 blank lines, found 1 E .\test_conftest.py:44:1: E302 expected 2 blank lines, found 1 E .\test_conftest.py:47:1: W391 blank line at end of file E .\test_linter.py:4:1: E302 expected 2 blank lines, found 1 E .\test_linter.py:17:63: W292 no newline at end of file E .\test_order.py:2:1: F401 'uuid' imported but unused E .\test_order.py:4:1: F401 'models.order.Order' imported but unused E .\test_order.py:10:1: E302 expected 2 blank lines, found 1 E .\test_order.py:17:1: E302 expected 2 blank lines, found 1 E .\test_order.py:32:1: E302 expected 2 blank lines, found 1 E .\test_order.py:36:1: E302 expected 2 blank lines, found 1 E .\test_order.py:53:1: E302 expected 2 blank lines, found 1 E .\test_order.py:65:61: W292 no newline at end of file E .\test_product.py:7:1: E302 expected 2 blank lines, found 1 E .\test_product.py:10:80: E501 line too long (80 > 79 characters) E .\test_product.py:25:1: E302 expected 2 blank lines, found 1 E .\test_product.py:32:1: E302 expected 2 blank lines, found 1 E .\test_product.py:34:80: E501 line too long (90 > 79 characters) E .\test_product.py:40:1: E302 expected 2 blank lines, found 1 E .\test_product.py:42:80: E501 line too long (85 > 79 characters) E .\test_product.py:47:1: E302 expected 2 blank lines, found 1 E .\test_product.py:53:80: E501 line too long (87 > 79 characters) E .\test_product.py:57:48: W292 no newline at end of file E .\unlock_admin.py:1:1: F401 'os' imported but unused E .\unlock_admin.py:2:1: F401 'sys' imported but unused E .\unlock_admin.py:3:1: F401 'json' imported but unused E .\unlock_admin.py:6:1: E302 expected 2 blank lines, found 1 E .\unlock_admin.py:17:1: E305 expected 2 blank lines after class or function definition, found 1 E .\views\cli_view.py:1:1: F401 'controllers.authentication_controller.AuthenticationController' imported but unused E .\views\cli_view.py:2:1: F401 'controllers.product_controller.ProductController' imported but unused E .\views\cli_view.py:3:1: F401 'controllers.order_controller.OrderController' imported but unused E .\views\cli_view.py:5:1: E302 expected 2 blank lines, found 1 E .\views\cli_view.py:60:80: E501 line too long (82 > 79 characters) E .\views\cli_view.py:119:80: E501 line too long (109 > 79 characters)

```
E .\views\cli_view.py:119:110: W291 trailing whitespace E .\views\cli_view.py:120:80: E501 line too long (92 > 79 characters) E
.\views\cli_view.py:150:80: E501 line too long (92 > 79 characters) E .\views\cli_view.py:218:80: E501 line too long (94 > 79 characters)
E .\views\cli_view.py:236:80: E501 line too long (125 > 79 characters) E .\views\cli_view.py:240:80: E501 line too long (89 > 79
characters) E .\views\cli_view.py:254:80: E501 line too long (83 > 79 characters) E .\views\cli_view.py:257:80: E501 line too long (112 >
79 characters) E .\views\cli_view.py:260:80: E501 line too long (99 > 79 characters) E .\views\cli_view.py:262:80: E501 line too long (105
> 79 characters) test_linter.py:17: Failed</failure>
<system-out>----- Captured Log ----- Captured
Out ----- </system-out>
<system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_order" name="test_list_customer_orders" file="test_order.py" line="52" time="0.014">
  <system-out>----- Captured Log ----- Captured
  Out ----- Order placed successfully. </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_order" name="test_place_order" file="test_order.py" line="35" time="0.010">
  <system-out>----- Captured Log ----- Captured
  Out ----- Order placed successfully. </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_product" name="test_add_product" file="test_product.py" line="24" time="0.008">
  <system-out>----- Captured Log ----- Captured
  Out ----- </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_product" name="test_delete_product" file="test_product.py" line="39" time="0.008">
  <system-out>----- Captured Log ----- Captured
  Out ----- </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_product" name="test_list_products" file="test_product.py" line="46" time="0.007">
  <system-out>----- Captured Log ----- Captured
  Out ----- </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_product" name="test_update_stock" file="test_product.py" line="31" time="0.009">
  <system-out>----- Captured Log ----- Captured
  Out ----- </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
</testsuite>
</testsuites>
```


This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<testsuites>
  <testsuite name="pytest" errors="0" failures="1" skipped="0" tests="10" time="3.986" timestamp="2025-01-11T18:21:56.834089+08:00"
    hostname="LAPTOP-QQOUPES4">
    <testcase classname="test_authentication.TestAuthentication" name="test_account_lockout" file="test_authentication.py" line="54"
      time="1.169">
      <system-out>----- Captured Log ----- WARNING root:authentication_controller.py:71
      lockuser account locked due to multiple failed attempts. ----- Captured Out -----
      Invalid username or password. You have 2 attempt(s) remaining. Invalid username or password. You have 1 attempt(s) remaining. Account
      locked due to multiple failed attempts. Please try again after 5 minutes. Account is locked. Please try again after 4 minute(s) and 59
      second(s). </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_authentication.TestAuthentication" name="test_invalid_login" file="test_authentication.py" line="47" time="0.006">
      <system-out>----- Captured Log ----- ----- Captured
      Out ----- Invalid username or password. </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_authentication.TestAuthentication" name="test_valid_login" file="test_authentication.py" line="27" time="0.592">
      <system-out>----- Captured Log ----- ----- Captured
      Out ----- </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_linter" name="test_flake8" file="test_linter.py" line="3" time="1.616">
      <failure message="Failed: Flake8 lint errors: .\test_authentication.py:2:1: F401 'os' imported but unused .\test_authentication.py:10:1:
      E302 expected 2 blank lines, found 1 .\test_authentication.py:25:1: E302 expected 2 blank lines, found 1 .\test_authentication.py:41:80:
      E501 line too long (93 > 79 characters) .\test_authentication.py:42:80: E501 line too long (84 > 79 characters)
      .\test_authentication.py:57:80: E501 line too long (82 > 79 characters) .\test_authentication.py:64:80: E501 line too long (93 > 79
      characters) .\test_authentication.py:65:80: E501 line too long (84 > 79 characters) .\test_authentication.py:74:48: W292 no newline at end
      of file .\test_confctest.py:2:1: F401 'os' imported but unused .\test_confctest.py:11:80: E501 line too long (106 > 79 characters)
      .\test_confctest.py:13:80: E501 line too long (109 > 79 characters) .\test_confctest.py:14:80: E501 line too long (118 > 79 characters)
      .\test_confctest.py:15:80: E501 line too long (83 > 79 characters) .\test_confctest.py:18:1: E302 expected 2 blank lines, found 1
      .\test_confctest.py:24:1: E302 expected 2 blank lines, found 1 .\test_confctest.py:30:1: E302 expected 2 blank lines, found 1
      .\test_confctest.py:36:1: E302 expected 2 blank lines, found 1 .\test_confctest.py:40:1: E302 expected 2 blank lines, found 1
      .\test_confctest.py:44:1: E302 expected 2 blank lines, found 1 .\test_confctest.py:47:1: W391 blank line at end of file
      .\test_linter.py:4:1: E302 expected 2 blank lines, found 1 .\test_linter.py:17:63: W292 no newline at end of file .\test_order.py:2:1:
      F401 'uuid' imported but unused .\test_order.py:4:1: F401 'models.order.Order' imported but unused .\test_order.py:10:1: E302 expected 2
      blank lines, found 1 .\test_order.py:17:1: E302 expected 2 blank lines, found 1 .\test_order.py:32:1: E302 expected 2 blank lines, found 1
      .\test_order.py:36:1: E302 expected 2 blank lines, found 1 .\test_order.py:53:1: E302 expected 2 blank lines, found 1
      .\test_order.py:65:61: W292 no newline at end of file .\test_product.py:7:1: E302 expected 2 blank lines, found 1 .\test_product.py:10:80:
      E501 line too long (80 > 79 characters) .\test_product.py:25:1: E302 expected 2 blank lines, found 1 .\test_product.py:32:1: E302 expected
      2 blank lines, found 1 .\test_product.py:34:80: E501 line too long (90 > 79 characters) .\test_product.py:40:1: E302 expected 2 blank
      lines, found 1 .\test_product.py:42:80: E501 line too long (85 > 79 characters) .\test_product.py:47:1: E302 expected 2 blank lines, found
      1 .\test_product.py:53:80: E501 line too long (87 > 79 characters) .\test_product.py:57:48: W292 no newline at end of
      file">@pytest.mark.linter def test_flake8(): """ Runs Flake8 lint checks on the entire project. Fails if any stylistic or syntax issues
```

```
are found. """ # Use python -m flake8 instead of direct flake8 cmd = ["python", "-m", "flake8", "."] result = subprocess.run(cmd,
capture_output=True, text=True) if result.returncode != 0: combined_output = result.stdout + "\n" + result.stderr > pytest.fail(f"Flake8
lint errors:\n{combined_output}") E Failed: Flake8 lint errors: E .\test_authentication.py:2:1: F401 'os' imported but unused E
.\test_authentication.py:10:1: E302 expected 2 blank lines, found 1 E .\test_authentication.py:25:1: E302 expected 2 blank lines, found 1
E .\test_authentication.py:41:80: E501 line too long (93 > 79 characters) E .\test_authentication.py:42:80: E501 line too long (84 > 79
characters) E .\test_authentication.py:57:80: E501 line too long (82 > 79 characters) E .\test_authentication.py:64:80: E501 line too long
(93 > 79 characters) E .\test_authentication.py:65:80: E501 line too long (84 > 79 characters) E .\test_authentication.py:74:48: W292 no
newline at end of file E .\test_conftest.py:2:1: F401 'os' imported but unused E .\test_conftest.py:11:80: E501 line too long (106 > 79
characters) E .\test_conftest.py:13:80: E501 line too long (109 > 79 characters) E .\test_conftest.py:14:80: E501 line too long (118 > 79
characters) E .\test_conftest.py:15:80: E501 line too long (83 > 79 characters) E .\test_conftest.py:18:1: E302 expected 2 blank lines,
found 1 E .\test_conftest.py:24:1: E302 expected 2 blank lines, found 1 E .\test_conftest.py:30:1: E302 expected 2 blank lines, found 1 E
.\test_conftest.py:36:1: E302 expected 2 blank lines, found 1 E .\test_conftest.py:40:1: E302 expected 2 blank lines, found 1 E
.\test_conftest.py:44:1: E302 expected 2 blank lines, found 1 E .\test_conftest.py:47:1: W391 blank line at end of file E
.\test_linter.py:4:1: E302 expected 2 blank lines, found 1 E .\test_linter.py:17:63: W292 no newline at end of file E .\test_order.py:2:1:
F401 'uuid' imported but unused E .\test_order.py:4:1: F401 'models.order.Order' imported but unused E .\test_order.py:10:1: E302 expected
2 blank lines, found 1 E .\test_order.py:17:1: E302 expected 2 blank lines, found 1 E .\test_order.py:32:1: E302 expected 2 blank lines,
found 1 E .\test_order.py:36:1: E302 expected 2 blank lines, found 1 E .\test_order.py:53:1: E302 expected 2 blank lines, found 1 E
.\test_order.py:65:61: W292 no newline at end of file E .\test_product.py:7:1: E302 expected 2 blank lines, found 1 E
.\test_product.py:10:80: E501 line too long (80 > 79 characters) E .\test_product.py:25:1: E302 expected 2 blank lines, found 1 E
.\test_product.py:32:1: E302 expected 2 blank lines, found 1 E .\test_product.py:34:80: E501 line too long (90 > 79 characters) E
.\test_product.py:40:1: E302 expected 2 blank lines, found 1 E .\test_product.py:42:80: E501 line too long (85 > 79 characters) E
.\test_product.py:47:1: E302 expected 2 blank lines, found 1 E .\test_product.py:53:80: E501 line too long (87 > 79 characters) E
.\test_product.py:57:48: W292 no newline at end of file test_linter.py:17: Failed</failure>
<system-out>----- Captured Log ----- Captured
Out ----- </system-out>
<system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_order" name="test_list_customer_orders" file="test_order.py" line="52" time="0.024">
  <system-out>----- Captured Log ----- Captured
  Out ----- Order placed successfully. </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_order" name="test_place_order" file="test_order.py" line="35" time="0.012">
  <system-out>----- Captured Log ----- Captured
  Out ----- Order placed successfully. </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_product" name="test_add_product" file="test_product.py" line="24" time="0.008">
  <system-out>----- Captured Log ----- Captured
  Out ----- </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_product" name="test_delete_product" file="test_product.py" line="39" time="0.008">
  <system-out>----- Captured Log ----- Captured
  Out ----- </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
```

```
<testcase classname="test_product" name="test_list_products" file="test_product.py" line="46" time="0.008">
  <system-out>----- Captured Log ----- Captured
  Out ----- </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_product" name="test_update_stock" file="test_product.py" line="31" time="0.008">
  <system-out>----- Captured Log ----- Captured
  Out ----- </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
</testsuite>
</testsuites>
```

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<testsuites>
  <testsuite name="pytest" errors="0" failures="0" skipped="0" tests="10" time="3.851" timestamp="2025-01-12T18:04:26.484455+08:00"
    hostname="LAPTOP-QQOUPES4">
    <testcase classname="test_authentication.TestAuthentication" name="test_account_lockout" file="test_authentication.py" line="65"
      time="1.188">
      <system-out>----- Captured Log ----- WARNING root:authentication_controller.py:82
        lockuser account locked due to multiple failed attempts. ----- Captured Out -----
        Invalid username or password. You have 2 attempt(s) remaining. Invalid username or password. You have 1 attempt(s) remaining. Account
        locked due to multiple failed attempts. Please try again after 5 minutes. Account is locked. Please try again after 4 minute(s) and 59
        second(s). </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_authentication.TestAuthentication" name="test_invalid_login" file="test_authentication.py" line="58" time="0.005">
      <system-out>----- Captured Log ----- Captured
        Out ----- Invalid username or password. </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_authentication.TestAuthentication" name="test_valid_login" file="test_authentication.py" line="36" time="0.579">
      <system-out>----- Captured Log ----- Captured
        Out ----- </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_linter" name="test_flake8" file="test_linter.py" line="10" time="1.664">
      <system-out>----- Captured Log ----- Captured
        Out ----- </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_order" name="test_list_customer_orders" file="test_order.py" line="70" time="0.012">
      <system-out>----- Captured Log ----- Captured
        Out ----- Order placed successfully. </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_order" name="test_place_order" file="test_order.py" line="52" time="0.010">
      <system-out>----- Captured Log ----- Captured
        Out ----- Order placed successfully. </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_product" name="test_add_product" file="test_product.py" line="27" time="0.007">
      <system-out>----- Captured Log ----- Captured
        Out ----- </system-out>
      <system-err>----- Captured Err ----- </system-err>
    </testcase>
    <testcase classname="test_product" name="test_delete_product" file="test_product.py" line="52" time="0.008">
```

```
<system-out>----- Captured Log ----- Captured
Out ----- </system-out>
<system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_product" name="test_list_products" file="test_product.py" line="65" time="0.006">
  <system-out>----- Captured Log ----- Captured
  Out ----- </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
<testcase classname="test_product" name="test_update_stock" file="test_product.py" line="38" time="0.008">
  <system-out>----- Captured Log ----- Captured
  Out ----- </system-out>
  <system-err>----- Captured Err ----- </system-err>
</testcase>
</testsuite>
</testsuites>
```