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# Practical Test 4

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## 1. Setting up for Practical Test 4

Create and work in a **FOP/PracTest4** directory for the test.

## 2. Download and modify a Python program

Download **accounts.py** and **testAccounts.py** from the Assessments under Practical Test 4. Note this implementation has a Portfolio class to hold a collection of bank accounts

Modify **testAccounts.py** to:

1. Create an account "Castle", a/c number "999999-1", balance \$1000
2. Create an account "Shrubbery", a/c number "999999-2", balance \$100
3. Print the balances of the accounts  
*<test your code to here before going on>*
4. Deposit \$100 into the Castle account
5. Withdraw \$10 from the Shrubbery account
6. Withdraw \$1000 from the Shrubbery account
7. Print the balances of the accounts  
*<test your code to here before going on>*

Modify **accounts.py** to:

1. Complete the code for `getNumAccounts()` and `getTotalBalance()`

Modify **testAccounts.py** to:

1. Add another account "Grail", a/c number "999999-3", balance \$100 (can be included at start of program, with other accounts)
2. Withdraw \$1000 from the Grail account
3. Use and test `getNumAccounts()` and `getTotalBalance()` – printing out their results

Modify **accounts.py** to:

1. **Add exception handling:**  
Modify `withdraw()` to check if the balance is able to cover the withdrawal amount.
  - a. If not, raise an **InsufficientFundsError** exception (in the `withdraw` method) and leave the balance unchanged.  
Insufficient funds error is defined in `accounts.py`

Modify **testAccounts.py** to:

1. **Add exception handling:**  
Handle the possible exceptions for each withdrawal in **testAccounts.py** (`try/except`) – print an explanatory message if an exception is thrown.

## 3. Update the README file

Copy or create a README file for the test, update it to include your files.

## 4. Submission

Submit your test via Blackboard using the link on the Assessment page. Go to your FOP directory and type: `zip -r PracTest4_ID PracTest4`

**End of Test**