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# BetterFutures Operating Manual

## Setting up BetterFutures:

### Database requirement:

To successfully operate the BetterFutures software, you must be running a SQLPlus 11.1.0.6.0 database. On a user account with appropriate permissions, run the Team10.sql script (included in this package) to setup the necessary tables, triggers, procedures and other database back-end requirements.

### Software requirement:

You must have the Java Runtime Environment on any computer that is meant to run the BetterFuture software, and it must be version 1.6.0\_37 or later.

### Configuring the source code and installing:

Move the Team10.java code into whatever directory you wish to be the home for the BetterFutures software. There, you (or your administrator) should open Team10.java with an appropriate text editor. In the main class declaration "public Team10Project()" your DB administrator should substitute the "username" and "password" strings with the correct information corresponding to a user registered to the DB backend desribed above, and with sufficient privileges to create, modify, and drop tables, as well as run "exec immediate" scripts. Your admnistrator should also replace the "url" string with the correct URL for your DB.

Once an appropriate DB-user is setup and the URL is corrected, you can compile the software at the command line (in the appropriate directory) with "javac Team10Project.java". Once this compilation completes, you can operate the software by simply typing "'java Team10Project."

## Navigating BetterFutures:

BetterFutures operates on a text-based menu system. To perform any action in BetterFutures, you must be logged in. This login does not refer to the DB user for the SQLPlus system where BetterFutures is housed, but rather one's status as a user or administrator of the BetterFutures system.

### The Admin Menu:

BetterFutures comes with a default administrator account named 'admin' with the passwodr of 'root'. This administrator, and any other user who is created as an administrator by a BetterFutures administrator, can perform many actions related to the upkeep of the BetterFutures database.

#### 1. Create a new customer

A BetterFutures administrator may add new customers to BetterFutures by selecting this option and following the prompts for appropriate data inputs. The last prompt will ask whether or not you wish to make this customer an administrator. At the moment, this decision is irrevocable.

NOTE (1): No two customers are permitted to share the same login name, and BetterFutures will not allow you to register a user with such a shared login name specified.

NOTE (2): No default customers are specified, so an early responsibility of the BetterFutures administrator will be to add customer accounts.

#### 2. Update share quotes

A BetterFutures administrator may update the price per share for any mutual fund currently in the system by following the prompts for appropriate data inputs. The price will be set to *correspond to the latest registered system date.*

NOTE (1): Any mutual fund without a share price currently specificed may 'update' to set its current price.

NOTE (2): If a mutual fund is current *as of the current latest system date*, its price may not be updated. An administrator may update the current system date and then change the price accordingly.

NOTE (3): If there is no current system date in the system, one must be set before share quotes can be set or updated.

#### 3. Add a new mutual fund

A BetterFutures administrator may add new mutual funds to the database by following the prompts for appropriate data inputs.

NOTE (1): No two mutual funds may share the same symbol, and BetterFutures will not allow you to add a mutual fund with such a shared symbol specified.

NOTE (2): A new mutual fund will not have a current share quote. We ***highly recommend*** setting a correct quote immediately after adding a new mutual fund.

#### 4. Update the current system date

A BetterFutures administrator may update the current system date by following the prompt and entering a new date.

NOTE (1): The new system date must be a later date than any system date currently in the system.

#### 5. Generate usage statistics

A BetterFutures administrator may view two kinds of statistics:

1) The top k highest volume categories of shares.

2) The top k largest individual investors.

#### 

### The User Menu:

Customers may take advantage of BetterFutures' options by logging in with their account name and password and navingating the text-based menu there. Options include:

#### 1. Browsing mutual funds

Customers may browse mutual funds in a variety of ways using the browsing mutual funds sub-menu. They may:

##### a) List all funds in a category of their choicse

##### b) List all fund by highest price on a given date

##### c) List all funds in alphabetical order

#### 2. Find Mutual Funds

By entereing two search terms, customers may find mutual funds that whose descriptions match what customers entered.

NOTE (1): This searches only on the mutual fund's description fields.

#### 3. Investing

Customers may deposit an amount of money by specfiying it in this menu. Shares will then be purchased according to that user's allocation preferences.

NOTE (1): If a user has no allocation preferences set, BetterFutures will not allow them to invest this way until they do.

NOTE (2): If at least 1 share of each specified preference cannot be purchase with the user's new balance after investing, no purchases will be made, and the customer's balance will be credited with the deposit.

#### 4. Selling Shares

Customers may sell shares by providing the symbol of the share they wish to sell at the appropriate prompt, as well as the number of shares they wish to sell.

#### 5. Buying Shares

Customers may buy shares either by specifying a symbol and an amount of money (which will be taken from the balance in their account), or by specifying a symbol and a number of shares to attempt to purchase.

NOTE (1): With the first option, BetterFutures ***will*** attempt to buy as many shares as it can with that amount of money. The remainder will stay in the customer's balance.

NOTE (2): With the second option, BetterFutures ***will not*** purchase if the customer's balance is inadequate to get the specified number of shares.

#### 6. Change Allocation Preferences

Customers may set their allocation preferences here.

NOTE (1): Allocations are percentages that must add up to 1 (i.e. 100%). BetterFutures will not update attempted allocation changes that do not sum to 1.

#### 7. Generate a Performance Report

Customers may generate a performance report for their portfolio of current ownings. This will show current shares held, the price for obtaining those shares, and the current profit yield (or loss) from each. It will also display the net worth of the portfolio given current share prices.

## Further Technical Help

Contact your friendly Team10 experts - John Lee, JOL29@pitt.edu, or Miguel Dickson, lmd90@pitt.edu. They'd be delighted to answer your queries!