# YggFinance

A Personal Finance Web Application

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YggFinance: What is it?

- **Webpage-based application**
  - **Browser must support cookies**
- **Interactive user interface**
  - **Multi-tab menu**
  - **Tab for each financial planning subject**
  - **Subject-related tools on respective tabs**
- **Microservice architecture**
  - **Each tool will be delegated to a single service**
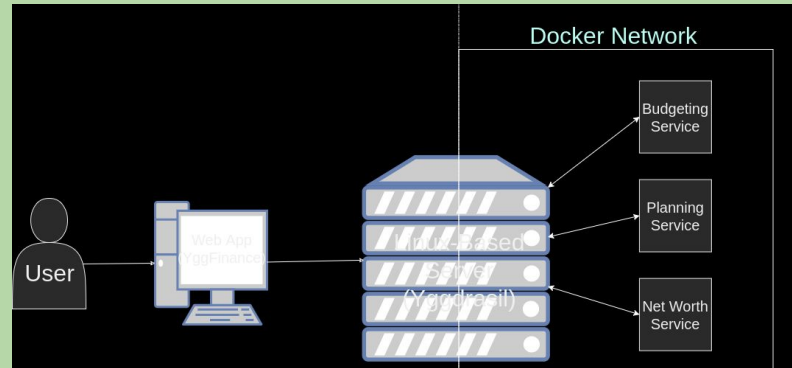
What Will It Do? (Contents of the Top Menu)

Welcome Page:

Short descriptions of the Monthly Budget, Savings Planner, and Net Worth Tracking pages along with their included tools.

Savings Planner Page:

- Investment calculator
- Monthly contributions
- Time frame selection for investments

Monthly Budget Page:

- Plan a monthly budget
- Enter transactions throughout the month
- Reconcile user inputted transactions with tracked transactions from bank statements

Net Worth Tracking Page:

- Net worth tracked via user input
- Pie chart graphic for visualization

Savings Planner

- **Initial investment amount**
  - User input validated to correct form
  - Warning display will appear if not correct
  - Required field for calculation
- **Average rate of return**
  - Will have a form and warning similar to initial amount
  - Required field
- **Monthly contributions**
  - Not required for calculation
  - Will have form validation and warning messages
  - Will default to zero if left empty
- **Timeline**
  - Slider bar form in units of years
  - Selectable range from one to eighty years

Monthly Budget

- **Categories for budgeting**
  - Gas
  - Groceries
  - Utilities
  - Rent/Mortgage
  - Car Payment
  - Cellular/Wireless/Cable
  - Other recurring
  - Other non-recurring
- **Transactions**
  - Consist of: category, merchant, type, date, amount
  - Income or expenses
- **Reconciliation**
  - Takes a month's budget history
  - Compares listed budget with bank transactions

Net Worth Calculator

- **Net Worth Fields**
  - **Real Estate**
  - **Checking Accounts**
  - **Savings Accounts**
  - **Retirement**
  - **Automobiles**
  - **Other Assets**
  - **Remaining Mortgage Balance**
  - **Personal Loans**
  - **Auto Loans**
  - **Student Loans**
  - **Consumer Debt**
  - **Other Liabilities**
- **Pie Chart Visualization**
  - **Gives listed percentages of assets and liabilities**

Possible Challenges

- **Reconciliation (Monthly Budget)**
  - CSV files may not format properly upon reading
  - Bank statement info may not be available from the institution in CSV
  - Many institutions have different standards for available statement file formats and data formatting
  - Users may often have to default to manual entry
- **Transactions (Monthly Budget)**
  - Auto-updating to show remaining budget balance
  - Allowing some visual cue to allow users to see they have encountered an error in real time