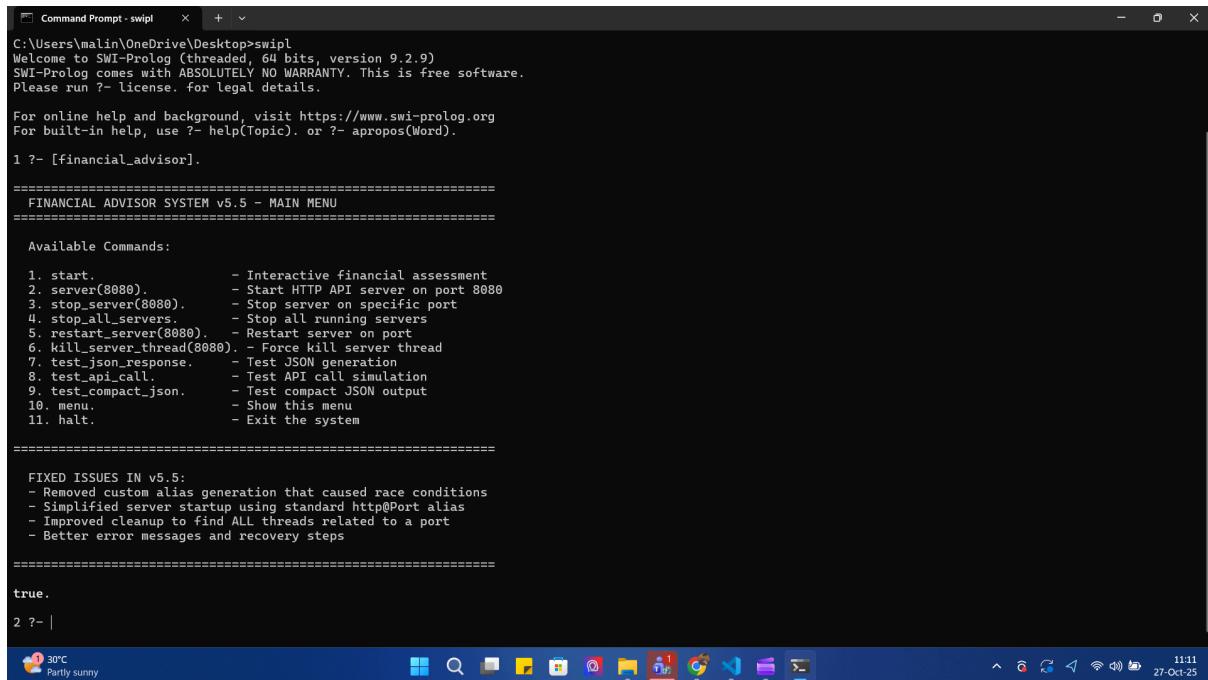


1. Load Prolog file



```
C:\Users\malin\OneDrive\Desktop>swipl
Welcome to SWI-Prolog (threaded, 64 bits, version 9.2.9)
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.
Please run ?- license. for legal details.

For online help and background, visit https://www.swi-prolog.org
For built-in help, use ?- help(Topic). or ?- apropos(Word).

1 ?- [financial_advisor].
=====

FINANCIAL ADVISOR SYSTEM v5.5 - MAIN MENU
=====

Available Commands:

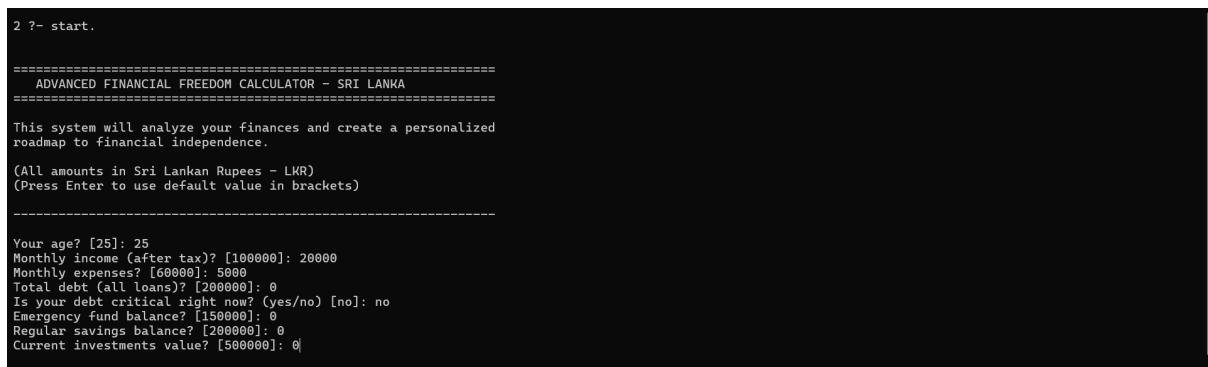
1. start.           - Interactive financial assessment
2. server(8080).   - Start HTTP API server on port 8080
3. stop_server(8080). - Stop server on specific port
4. stop_all_servers. - Stop all running servers
5. restart_server(8080). - Restart server on port
6. kill_server_thread(8080). - Force kill server thread
7. test_json_response. - Test JSON generation
8. test_api_call. - Test API call simulation
9. test_compact_json. - Test compact JSON output
10. menu.          - Show this menu
11. halt.           - Exit the system

=====
FIXED ISSUES IN v5.5:
- Removed custom alias generation that caused race conditions
- Simplified server startup using standard http@Port alias
- Improved cleanup to find ALL threads related to a port
- Better error messages and recovery steps
=====

true.

2 ?- |
```

2. Run the interactive financial assessment



```
2 ?- start.
=====

ADVANCED FINANCIAL FREEDOM CALCULATOR - SRI LANKA
=====

This system will analyze your finances and create a personalized
roadmap to financial independence.

(All amounts in Sri Lankan Rupees - LKR)
(Press Enter to use default value in brackets)

-----
Your age? [25]: 25
Monthly income (after tax)? [100000]: 20000
Monthly expenses? [60000]: 5000
Total debt (all loans)? [200000]: 0
Is your debt critical right now? (yes/no) [no]: no
Emergency fund balance? [150000]: 0
Regular savings balance? [200000]: 0
Current investments value? [500000]: 0
```

3. Results

Generating your personalized financial freedom report...

=====

COMPREHENSIVE FINANCIAL FREEDOM REPORT
(Sri Lanka - LKR)

=====

STEP 1: YOUR FINANCIAL HEALTH SCORE

=====

OVERALL SCORE: 58/100

Savings Rate: 75.0% (25/25 points) - Excellent savings discipline
Emergency Fund: 0.0 months coverage (0/25 points) - CRITICAL: Build to 3 months minimum
Debt Level: Rs. 0 (0.0% of annual income, 25/25 points) - Low debt, excellent position
Total Assets: Rs. 0 (0/25 points) - Building foundation

ASSESSMENT: FAIR - Building foundation, keep improving

=====

STEP 2: YOUR INCOME-BASED FINANCIAL PLAN

=====

Income Category: low (Rs. 20,000 per month)
Debt Status: MANAGEABLE

MONTHLY BREAKDOWN (from Rs. 15,000 savings):

- For Investments: Rs. 4,500 (30%)
- For Debt Payment: Rs. 1,500 (10%)
- For Emergency Fund: Rs. 1,500
- Flexible/Personal Dev: Rs. 7,500

RECOMMENDED INVESTMENT OPTIONS:
Money market funds, Unit trusts, Personal development, Treasury bills, Fixed deposits

Note: Diversify across multiple options. Never put all money in one investment. Start with lower-risk options and gradually move to higher-risk investments as you gain experience.

=====

STEP 3: YOUR CURRENT FINANCIAL STATE

=====

Age: 25 years
Monthly Income: Rs. 20,000
Monthly Expenses: Rs. 5,000
Monthly Savings: Rs. 15,000 (75.0% savings rate)

Current Assets:

- Emergency Fund: Rs. 0
- Savings: Rs. 0
- Investments: Rs. 0
- TOTAL ASSETS: Rs. 0

Debt: Rs. 0 (Manageable)

=====

STEP 4: PATH TO FINANCIAL INDEPENDENCE

=====

Financial Independence Target: Your investments generate Rs. 5,000 per month (Rs. 60,000 per year) to cover your expenses.

TIMELINE TO FINANCIAL INDEPENDENCE:
(Based on monthly investment of Rs. 4,500)

8% ROI: 9.4 years (Age 34.4)
12% ROI: 6.3 years (Age 31.3)
16% ROI: 4.7 years (Age 29.7)
20% ROI: 3.8 years (Age 28.8)
24% ROI: 3.1 years (Age 28.1)

RECOMMENDATION:

- Conservative approach (8-12% ROI): Focus on FDs, bonds, funds
- Balanced approach (12-16% ROI): Mix of stocks, funds, property
- Aggressive approach (16-24% ROI): Stocks, business, real estate (Higher risk, requires knowledge and active management)

Choose a strategy that matches your risk tolerance and financial knowledge. Most people achieve 10-15% average annual returns with balanced diversified portfolios.

=====

Important Notes:
1. Review and adjust this plan every 6 months

4. Test JSON report generation

```
true .

3 ?? test_json_response.

==== Testing JSON Response Generation ===

Generated JSON Response:

{
  "age": 25,
  "debt": 200000,
  "debt_critical": "no",
  "emergency_balance": 150000,
  "fi_timelines": [
    {"age_at_fi": 40.7, "roi": 8, "years_to_fi": 15.7},
    {"age_at_fi": 34.5, "roi": 12, "years_to_fi": 9.5},
    {"age_at_fi": 31.4, "roi": 16, "years_to_fi": 6.4},
    {"age_at_fi": 29.7, "roi": 20, "years_to_fi": 4.7},
    {"age_at_fi": 28.5, "roi": 24, "years_to_fi": 3.5}
  ],
  "financial_health_score": 65,
  "investments": 500000,
  "meta": {
    "currency": "LKR",
    "generated_at": "2025-10-27T11:19:16Z",
    "version": "5.5"
  },
  "monthly_expenses": 60000,
  "monthly_income": 100000,
  "monthly_savings": 40000,
  "recommendations": [
    {
      "detail": "Build emergency fund to 6 months of expenses before aggressive investing. This protects you from unexpected events.",
      "priority": "high",
      "title": "Emergency Fund Priority"
    },
    {
      "detail": "Renewable energy, Agriculture, Unit trusts, Personal development, Gold, Silver, Treasury bonds, Fixed deposits",
      "priority": "medium",
      "title": "Investment Diversification"
    }
  ]
}
```

5. Start HTTP API server

```
4 ?- server(8080).
No existing server threads found for port 8080.

=====
Financial Advisor HTTP Server Starting...
=====
Port: 8080
Endpoint: http://localhost:8080/financial_advisor
=====

Example API call:
curl "http://localhost:8080/financial_advisor?age=25&income=100000&expenses=60000&debt=200000&debt_critical=no&emergency=150000&savings=200000&investments=500000"

Server is running. Press Ctrl+C to stop.

% Started server at http://localhost:8080/
true.

5 ?- |
```