

COMP-SCI 5551 (FS16) - Advanced Software Engineering

Project Presentation (Dec 6th, 2016)



**Pocket
Manager**

Team 1

Joshua Neustrom (39)

Yunlong Liu (25)

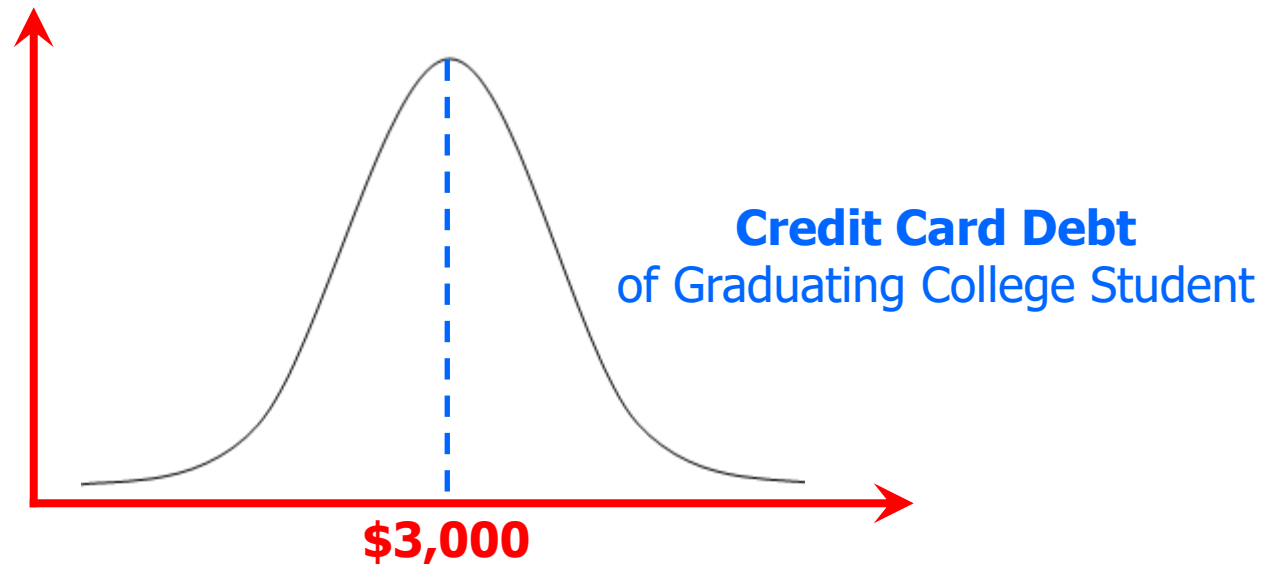
Chen Wang (58)

Dayu Wang (59)

- Problem Intended to Solve - **Can college students manage their money wisely?**

Problem 1: A "**millionaire**" at the beginning of the month
A "**pauper**" at the end of the month.

Problem 2: **Credit Card Abuse**

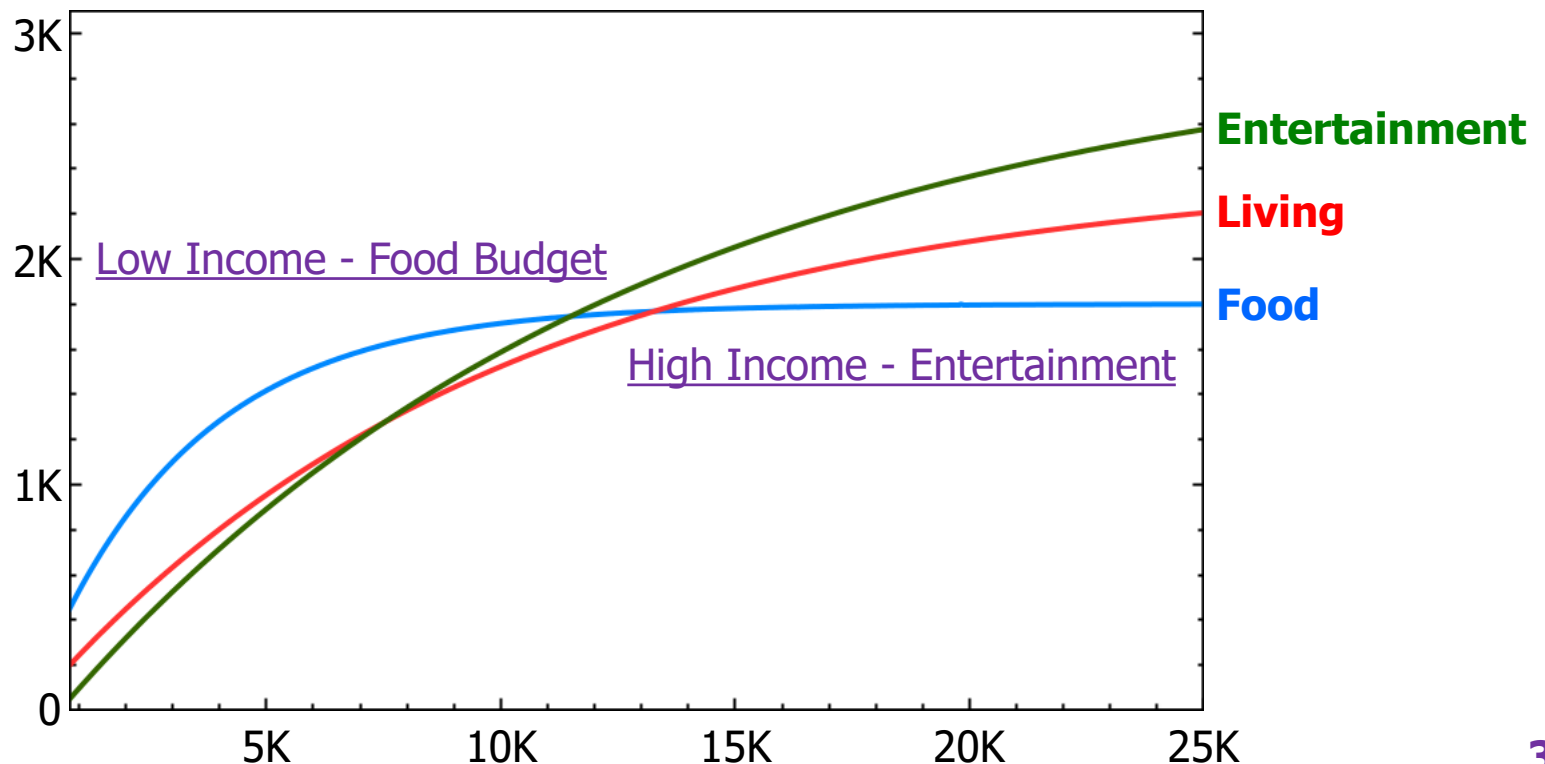


Problem 3: Never **record** his/her expenses.
Never be aware of his/her **bad spending habits.**

- Budget Generation - Fitting Curves - **Core Philosophy**

$$y = A \cdot B^{\min-x} + \max$$

Column	A	B	<i>min</i>	<i>max</i>
Food	−1350	1.0003	800	1800
Living	−2200	1.0001	800	2400
Entertainment	−2950	1.00008	800	3000



- Separating **Needs** from **Wants** - Searching and Suggesting

Step 1: Search an item you want.



Step 2: Get our suggestion.

Design Rationale

Column 3
Price > Income × 15%

Column 2
Price ≤ Income × 15%

Column 1
Price ≤ Income × 3%

1. How to define "**affordable**" and "**not affordable**"?
2. Credit card debts are mostly accumulated by multiple **small expenses**.
3. We **trust** that an adult has at least some ability of self-control.

- Record Your Every Expense - Lazy? Just **take a picture!**

Characteristics

1. Classified into **budget columns**.
2. Budget **deductible**
3. Can save **receipt picture** as well.

Research Work

Automatic Receipt Input

Future Work

1. Splitted receipts
2. Automatic recognition of some store receipts.
3. Self-adjusting mathematical fitting curves.

The Broker's Store		
5110 Rockill Rd.		
Kansas City, MO 64110		
8162352296		
Cashier <i>Emily</i>	12/04/2016	0017544
1	Coffee Mug	\$6.99
2	Chips (@ 2.49 each)	\$4.98
1	Butter	\$1.99
	Total	\$13.96
	Tax (10.35%)	\$1.44
	Grand Total	\$15.40
	Payment (Cash)	\$20.00
	Change	\$4.60
	Total Due	\$0.00
Thank you for shopping!		

In most cases, the number we need in the receipt is not the largest number extracted from the OCR API.

The END

Thank you!