

# Distributed Software Development



2012-11-26



2



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# Alpha presentation



2012-11-26



3



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# Review

- Our plan so far
- Statistics
- SW development methodology
- Parsing
- Integration
- Problems
- Alpha version

# Our plan

ID	Task Name	Duration	Start	Finish	Pred	Resource Names	44	45	46	47	48	49	50	51
7	Data sources defined	27 days	W44/2	W49/3	3	XM,TJ	[Gantt bar for XM,TJ from 44 to 49]							
8	Set up VM with all components	1 day	W45/2	W45/2	2	XM	[Task bar for XM at 45]							
9	Set up Kunagi	1 day	W45/2	W45/2	2	XM,JM,SM	[Task bar for XM,JM,SM at 45]							
10	Create MySQL database on VM	1 day	W45/2	W45/2	2	JM,XM	[Task bar for JM,XM at 45]							
11	Define backlog	1 day	W45/3	W45/3	10	JM	[Task bar for JM at 45]							
12	<b>Sprint implement basic functionality</b>	<b>13 days</b>	<b>W45/4</b>	<b>W47/6</b>	<b>11</b>	<b>All</b>	[Sprint bar from 45 to 47]							
13	<b>Implementing backlog tasks</b>	<b>12 days</b>	<b>W45/4</b>	<b>W47/5</b>	<b>11</b>	<b>JM,SM,ZK,FY</b>	[Sprint sub-bar from 45 to 47]							
14	Implementing server side functionality	12 days	W45/4	W47/5	11	JM,SM	[Task bar for JM,SM from 45 to 47]							
15	Implementing client side functionality	12 days	W45/4	W47/5	11	FY,ZK	[Task bar for FY,ZK from 45 to 47]							
16	Basic functionality test	1 day	W47/6	W47/6	13	JM,TY	[Task bar for JM,TY at 47]							
17	GUI test	1 day	W47/6	W47/6	13	ZK,SM	[Task bar for ZK,SM at 47]							
18	<b>Implement data parsers</b>	<b>12 days</b>	<b>W45/4</b>	<b>W47/5</b>	<b>10</b>	<b>TJ,XM</b>	[Sprint sub-bar from 45 to 47]							
19	Create parser for Wall-Mart web page	12 days	W45/4	W47/5	2	TJ	[Task bar for TJ from 45 to 47]							
20	Create parser for the RAPEX databse	12 days	W45/4	W47/5	2	XM	[Task bar for XM from 45 to 47]							
21	Backlog grooming	1 day	W47/6	W47/6	13	All	[Task bar for All at 47]							
22	Documentation updated	1 day	W48/4	W48/4	12	All	[Task bar for All at 48]							
23	Define backlog	1 day	W48/2	W48/2	12	JM	[Task bar for JM at 48]							
24	<b>Sprint - optional functionality implementation</b>	<b>24 days</b>	<b>W48/3</b>	<b>W52/6</b>	<b>23</b>	<b>All</b>	[Sprint bar from 48 to 52]							
25	Data sources parsing	18 days	W49/4	W52/6	7	TJ,XM	[Task bar for TJ,XM from 49 to 52]							

# Statistics

Member	W43	W44	W45	W46	W47	Total
Juraj	25	26	23	20	18	112
Sasa	17	21	15	8	16	77
Zelimir	19	19	15	19	28	100
Fouad	21	12	27	20	21	101
Xiaowei	17	18	22	14	20	91
Trevor	27.5	19.5	27.5	23	23	120.5
Total:	126.5	115.5	129.5	104	126	<b>601.5</b>

# Statistics

272 revision(s)

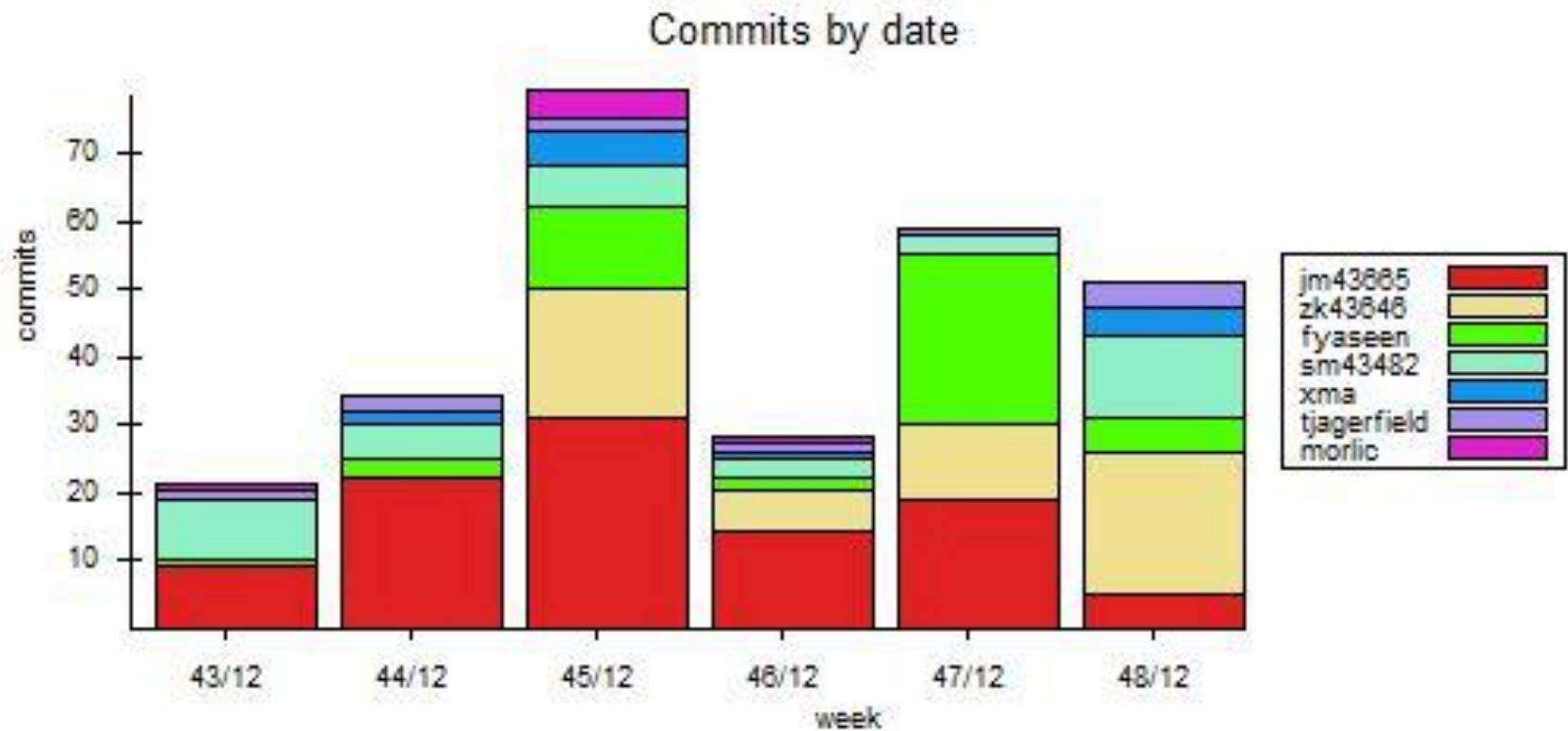
159 MB

SVN

691 Folders

1,608 Files

# Statistics



# Changes

- New data source



- Database

– New tables:

- Foodfacts, RAPEX



# Development methodology

- Process
  - SCRUM
- Tool:



# Quality requirements

qit2 Data integrity

qit1 Database optimization

qit8 Interface

qit4 Interoperability

Label	Interoperability	My emoticon 😊 😐 😡 😢 😄
Description	The application will have an interface that will enable it to interact with the android client and potentially other clients as well.  The server will have to have an interface	<a href="#">Create a comment...</a>
Test	Test server functionality by calling the interface defined methods	

qit5 Performance

qit7 Security

qit3 Susceptibility to testing

qit6 Usability

# Risks

rsk2	significant	No adequate data sources	▼
rsk7	moderate	Setting up the development environment takes more time	▼
rsk4	moderate	Developers lack knowledge of the technology	▼
rsk3	moderate	The project gets prolonged	▼
rsk1	moderate	No barcode scanner functionality	▼
rsk6	low	Work coordination over distance	▼
<p>Label: Work coordination over distance</p> <p>Description: Organisation and work deviation over distance can be a problem. Also understanding each other can also be a potential problem</p> <p>Impact: medium</p> <p>Probability: very unlikely</p> <p>Priority: low</p> <p>Impact Mitigation: .</p> <p>Probability Mitigation: .</p> <p>My emoticon: 😊 🙄 😡 😞 😊</p> <p><a href="#">Create a comment...</a></p>			
rsk5	low	Members not available	▼

# SCRUM Voting

**Planning Poker**

juraj xiaowei Zelimir Trevor fouad smarjancic

? 0 0.5 1 2 3 5 8 13 20 40 100

No idea 0 pts 0.5 pts 1 pts 2 pts 3 pts 5 pts 8 pts 13 pts 20 pts 40 pts 100 pts

[Reset](#) [Close Planning Poker](#)

# First sprint

sto1	✔	Search product by name	100% completed, 23 hrs burned	😊 ▼
sto2	✔	Search product by barcode	100% completed, 2 hrs burned	▼
sto3	✔	User profile management	100% completed, 3 hrs burned	▼
sto4	✔	User product review	100% completed, 1 hrs burned	▼
sto6		Get data from Wall-Mart	0% completed, 2 hrs left	▼
sto7	✔	Get data form RAPEX	100% completed, 0 hrs burned	▼

## Sprint Properties

Label Sprint to implement basic functionality

Goal Implement part of the basic functionality and gather data from RAPEX and Wall-Mart

My emoticon 😊 🙄 😡 🙄 😊

[Create a comment...](#)

### Releases

Begin 2012-11-14 Length  End 2012-11-27

Stories Completed nothing Estimated 74 pts

Tasks Burned 29 hours Remaining 2 hours

Planning Note .

Review Note .

Retrospective Note .

[Download as PDF](#)

# Whiteboard

**Free Tasks** (nothing to do)

task1 ✓ Search product by name 100% completed, 2 hrs burned

Create Task

task2 ✓ Search product by barcode 100% completed, 2 hrs burned

Create Task

task3 ✓ User profile management 100% completed, 3 hrs burned

Create Task

task4 ✓ User product review 100% completed, 1 hrs burned

Create Task

task5 Get data from Wall-Mart 0% completed, 2 hrs left

task6 Parsing WallMart 2 hrs left

task7 Send WallMart parsed data to the database... 2 hrs left

Create Task

task8 ✓ Get data form RAPEX 100% completed, 2 hrs burned

Create Task

**Claimed Tasks** (2 hours to do, nothing done)

**Completed Tasks** (29 hours done)

task7 ✓ Implement getting data from the database emargenic

task13 ✓ Create basic Android GUI Zahir

task17 ✓ Implement sending data to the Client emargenic

task20 ✓ Create client side Infrastructure toud

task22 ✓ Create server side Infrastructure toud

task25 ✓ Implement server interface juraj

task27 ✓ Implement search by name functionality Zahir

task13 ✓ Implement getting data from database juraj

task14 ✓ Implement server controller juraj

task22 ✓ Implement server side GUI toud

task25 ✓ Implement server interface juraj

task18 ✓ Create Android activity for user profile management Zahir

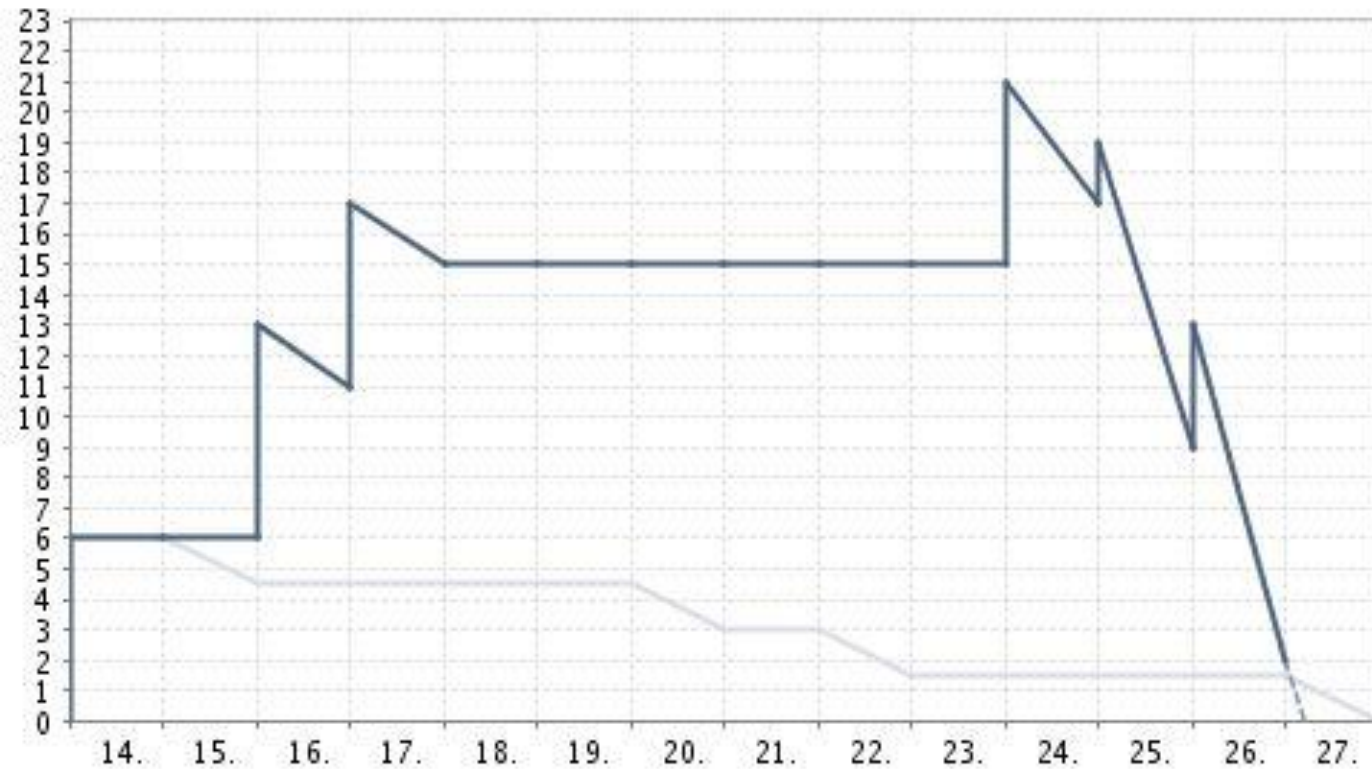
task12 ✓ Implement storing reviews to the database emargenic

task24 ✓ Implement server interface juraj

task2 ✓ RAPEX parser abakar



# Burn down chart



# Work distribution

Android client  
Fouad and Zelimir

Server  
Juraj and Sasa

Parsers  
Trevor and Xiaowei



# Data Source

- RAPEX



- Foodfacts & Amazon



# Parsing Rapex

1. Use python library to get the content of Rapex page
2. Use RE to extract each product from report
3. Use RE to extract all the columns of the table for each product
4. Get a list of values of rows in the table
  - eg, [ [columnA1, columnB1, columnC1],  
[columnA2, columnB2, columnC2], ...]

# Parsing Foodfacts & Amazon

1. Use Python RE to get a group of products in Food Facts, a list of product links is obtained.
2. Load each product link from the list and extract the UPC number.
3. Go to Amazon and search for the product there using the UPC number.
4. Save the Food Fact and Amazon product url.

# Parsing Foodfacts & Amazon

5. From Amazon : Product Description, Reviews Link and Star Ratings.
6. From Food Facts : Product Name, UPC, Ingredients, Warnings, Nutrition Facts, Description, Review Link And Stars, etc.

# Feeding Data To DB

1. Use Python DP-API connect to DB

MySQLdb

2. Pass SQL commands and value of rows

# Table Examples

Product	Brand	Name	Type/number of mo...	Batch number/Barcode	Description	Country of origin	Danger
Police play set	Hua Sheng	Special Police	Model: M623	10020368	The police set consists of 1 plastic toy mac...	China	The product poses a chemical risk because the projectiles contain 0.38 % by weight of bis (2-e
Children's sweatshirt	BSN	Unknown	Unknown	Unknown	Children's sweatshirt, intended for children...	Turkey	The product poses a risk of strangulation because of the presence of cords in the hood.The pr
Passenger cars	Ferrari	458 Italia, Ca...	Types: F142, F149	Vehides from the produc...	Passenger car.	Italy	A possible crack in the crankshaft may lead to engine failure and might cause the engine to sei
Via ferrata set	Wild Coun...	Via Ferrata	14VFSET	5033286040335	Climbing equipment set - energy-absorbing...	United Kingdom	With intensive use under certain conditions, the elasticated lanyard may no longer reach the b
Passenger car	Renault	Twizy	Vehides produced ...		Electric passenger car.	Spain	There is a risk of brake fluid leakage on the rear brake callipers during pressurization of the bra
Bath toy set	Play Wow	Squirters N'net	90/3073	Unknown	Toys for the bath, for children + 18 month...	China	The product poses a chemical risk because the plastic of the suction cups contains 14.4 % by v
Children's jacket	Cioe	Unknown	Item No.10W116KB...	8 699108 401721	Children's pink jacket with cords in the hoo...	Turkey	The product poses a risk of strangulation due to the presence of drawstrings in the hood.The
Children's jacket	Cioe	For Junior	Item10W116KBN672		Children's purple jacket with cords in the h...	Turkey	The product poses a risk of strangulation due to the presence of cords in the hood.The produ
Lamp	Biltema	Taitettava Ty...	46-336	Unknown	Lamp supplied with a separate mains suppl...	Sweden	The creepage distances between the primary and secondary sides of the power supply are no
Mains power supply	Modecom	Premium 350	Unknown		Switching power supply for use in compute...	Poland	The clearance and creepage distances between the primary and secondary parts of the trans
Plush toy	AVVIL Toy...	Unknown	AVT200714	Unknown	A grey plush dog (Siberian husky) with whit...	China	The product poses a risk of choking because the eyes of the plush dog come off very easily ar
Girls' bolero	Nino kids	Unknown	Unknown	550155	Children's knitted, sleeveless bolero in cycl...	Unknown	The product poses a risk of strangulation due to the presence of functional cords in the neck a
Van	FIAT	Fiorino and D...			Van.	Italy	The connector of the brake servo piping might be not compliant with the manufacturer's requir
Girls' top	Arino	Unknown	AR-8319		Girls' top in white colour decorated with flo...	Unknown	The product poses a risk of strangulation due to the presence of functional cords in the neck a
Children's clothing set	Quick line	Unknown	Unknown	Unknown	Children's sports set – a sweatshirt and a p...	Bulgaria	The product poses a risk of injuries and strangulation due to the presence of drawstrings in th
Children's clothing set	Holly Fash...	Unknown	1.2012-04; 2. 2012...	Unknown			The product poses a risk of injuries because of the presence of cords in the waist area.The pr
Toy wheelbarrow	Polet	Junior tools	Art No 1083	Unknown	Wheelbarrow made of hard red plastic, wit...	Belgium	The product poses a chemical risk because the black plastic covers protecting the screws (whic
Inflatable toy	TOI - TOYS	Air Toys	Art. no. 6102	Barcode 8714627161021	An inflatable toy – duck made from PVC, in ...	China	The product poses a chemical risk because parts of the duck contain up to 21.2 % by weight c
Children's dress	Sugar kids	Unknown	Unknown	Unknown	Children's halter-neck dress, supplied with ...	Turkey	The product poses a risk of strangulation due to the presence of cords in the neck area.The pr

# Table Examples

ProductName *	ImageLink	UPC *	Ingredients
1/2 Cup Arils (Seed/Juice Sacs) (3 oz)	http://cf.f...	fruit34	+ PomegranateSeeds,
100 Grand Chewy Caramel Candy Bar (1...	http://cf.f...	028000206307	+ Milk Chocolate, Animal-Derived;Dairy; + Sgar, Sgars; + CocoaBtter, + Chocolate, Animal-Derived;Dairy; + Milk Non-Fat, Animal-Derived;Dairy; + Lactose, Animal-Derived;Dairy; + Milk Fat, Anima
100% Whole Wheat Bread (24 ounces)	http://cf.f...	835841005200	+ Water, + Wheat Flor Whole, Wheat;Glten; + Wheat Glten Vital, Wheat;Glten; + Sgar Brown, Sgars; + Wheat Starch Modified, Wheat;Glten; + ChicoryRootExtract, + Sgar Cane Fiber, Sgars;Fib
123GlutenFree Aaron's Favorite Rolls Mi	http://cf.f...	0182566000...	+ RiceFlor, + TapiocaStarch, + MontinaFlor, + PerennialBnchGrass, + AdcnathernHymenoides, + Sgar, Sgars; + Salt, Salts; + Xanthan Gm, Corn; + YeastPacketGlten-Free,
123GlutenFree Allie's Awesome Buckwhe...	http://cf.f...	182566000035	+ RiceFlor, + BckwheatFlor, + TapiocaStarch, + RiceBrownFlor, + Sgar, Sgars; + BakingSoda, + BakingPowderAlminm-FreeCorn-Free, + Sodim Acid Pyrophosphate, Salts; + BakingSoda, + Tapioci
123GlutenFree Chewy Chipless Scrumdel...	http://cf.f...	182566000097	+ Sgar Brown Light, Corn;Sgars; + RiceFlor, + Sgar, Sgars; + TapiocaFlor, + Potato(es Starch, Nightshades; + BakingSoda, + Salt, Salts; + VanillaPowder, + Xanthan Gm, Corn; + BakingPowderA
123GlutenFree Delightfully Gratifying Po...	http://cf.f...	182566000042	+ Sgar, Sgars; + RiceFlor, + Potato(es Starch, Nightshades; + TapiocaStarch, + BakingPowderAlminm-FreeCorn-Free, + Sodim Acid Pyrophosphate, Salts; + BakingSoda, + TapiocaStarch, + Monc
123GlutenFree Deliriously Delicious Devil...	http://cf.f...	182566000134	+ RiceFlor, + CocoaProcessedWithAlkali, + TapiocaStarch, + BakingPowderAlminm-FreeCorn-Free, + Sodim Acid Pyrophosphate, Salts; + BakingSoda, + TapiocaStarch, + Monocalcim Phosphate, C
123GlutenFree Devilishly Decadent Brow...	http://cf.f...	182566000059	+ Sgar, Sgars; + ChocolateChnksSemi-SweetLactoseFreeCaseinFree, + Sgar, Sgars; + Chocolate Liqor Processed with Alkali, Animal-Derived; + CocoaBtter, + Soy Lecithin Emlsifer(s, Soy; + Salt,
123GlutenFree Divinely Decadent Browni...	http://cf.f...	182566000103	+ Sgar, Sgars; + RiceFlor, + CocoaProcessedWithAlkali, + Potato(es Starch, Nightshades; + TapiocaStarch, + VanillaPowder, + BakingPowderAlminm-FreeCorn-Free, + Sodim Acid Pyrophosphate,
123GlutenFree Lindsay's Lipsakin Roll-o...	http://cf.f...	182566000080	+ RiceFlor, + Sgar, Sgars; + TapiocaStarch, + Potato(es Starch, Nightshades; + VanillaPowder, + Xanthan Gm, Corn; + BakingPowderAlminm-FreeCorn-Free, + Sodim Acid Pyrophosphate, Salts; -
123GlutenFree Meredith's Marvelous Muf...	http://cf.f...	182566000066	+ RiceFlor, + Sgar, Sgars; + TapiocaStarch, + Potato(es Starch, Nightshades; + BakingSoda, + Salt, Salts; + BakingPowderAlminm-FreeCorn-Free, + Sodim Acid Pyrophosphate, Salts; + BakingSo
123GlutenFree Peri's Perfect Chocolate ...	http://cf.f...	182566000073	+ Sgar, Sgars; + RiceFlor, + Potato(es Starch, Nightshades; + TapiocaStarch, + BakingPowderAlminm-FreeCorn-Free, + Sodim Acid Pyrophosphate, Salts; + BakingSoda, + TapiocaStarch, + Monc
123GlutenFree Southern Glory Biscuit Mi...	http://cf.f...	182566000004	+ RiceFlor, + TapiocaFlor, + Potato(es Starch, Nightshades; + Corn Starch, Corn; + Sgar, Sgars; + Xanthan Gm, Corn; + Baking Powder Alminm-Free, Corn; + Sodim Acid Pyrophosphate, Salts; +
123GlutenFree Southern Style Corn Brea...	http://cf.f...	0182566000...	+ Corn Meal Yellow Stone-Grond, Corn; + Corn Starch, Corn; + Corn Flor, Corn; + Baking Powder Alminm-Free, Corn; + Sodim Acid Pyrophosphate, Salts; + BakingSoda, + Corn Starch, Corn; + M
123GlutenFree Sweet Goodness Pan Bar...	http://cf.f...	182566000011	+ Sgar, Sgars; + RiceFlor, + TapiocaStarch, + Potato(es Starch, Nightshades; + BakingSoda, + Spice(s), + BakingPowderAlminm-FreeCorn-Free, + Sodim Acid Pyrophosphate, Salts; + BakingSoda
123GlutenFree Yummy Yellow Cake Mix (...)	http://cf.f...	182566000110	+ RiceFlor, + Potato(es Starch, Nightshades; + TapiocaStarch, + BakingPowderAlminm-FreeCorn-Free, + Sodim Acid Pyrophosphate, Salts; + BakingSoda, + TapiocaStarch, + Monocalcim Phospha
16.3 oz (Peanut Butter - Creamy Reduce...	http://cf.f...	045300005447	+ Peant(s Roasted, Peants; + Corn Syrp Solids, Corn;Sgars; + Soy Protein Concentrate, MSG;Soy; + Sgar, Sgars; + Contains2%orlessofthefollowing:, + Vegetable(s Oil Hydrogenated, MSG;Soy;
3 Musketeers (2.13 oz)	http://cf.f...	040000000037	+ Milk Chocolate, Animal-Derived;Dairy; + Sgar, Sgars; + Chocolate, Animal-Derived;Dairy; + CocoaBtter, + Lactose, Animal-Derived;Dairy; + Milk Skim, Animal-Derived;Dairy; + Milk Fat, Animal-D
3 Musketeers 2 To Go Chocolate Bar (3...	http://cf.f...	040000006039	+ Milk Chocolate, Animal-Derived;Dairy; + Sgar, Sgars; + Chocolate, Animal-Derived;Dairy; + CocoaBtter, + Lactose, Animal-Derived;Dairy; + Milk Skim, Animal-Derived;Dairy; + Milk Fat, Animal-D
3 Musketeers Candy Bar (2.13 oz)	http://cf.f...	040000011033	+ Milk Chocolate, Animal-Derived;Dairy; + Sgar, Sgars; + Chocolate, Animal-Derived;Dairy; + CocoaBtter, + Milk Skim, Animal-Derived;Dairy; + Milk Fat, Animal-Derived;Dairy; + Soy Lecithin, Soy;
3 Musketeers Truffle Crisp Candy Bars (...)	http://cf.f...	040000007005	+ Milk Chocolate, Animal-Derived;Dairy; + Sgar, Sgars; + CocoaBtter, + Chocolate, Animal-Derived;Dairy; + Milk Skim, Animal-Derived;Dairy; + Lactose, Animal-Derived;Dairy; + Milk Fat, Animal-D
3 Musketeers Whipped Chocolate Candy...	http://cf.f...	0400000151227	+ Milk Chocolate, Animal-Derived;Dairy; + Sgar, Sgars; + Chocolate, Animal-Derived;Dairy; + CocoaBtter, + Lactose, Animal-Derived;Dairy; + Milk Skim, Animal-Derived;Dairy; + Milk Fat, Animal-D
34 Degrees Cracked Peoper Crisobread (...)	http://cf.f...	894771000365	+ Wheat Flor Enriched Unbleached. Wheat;Glten: + Wheat Flor. Wheat;Glten: + Barlev Malted Flor. MSG;Glten;Corn: + Niacin. Vitamins: + Iron. Iron: + Thiamine Mononitrate (Vitamin B.1. Vitamins

# Integration

- Integration over five iterations:
  - BuySafe v0.1
    - Servlet
  - BuySafe v0.2
    - Servlet + skeleton code (with errors)
  - BuySafe v0.3
    - Struts 2 + skeleton code (on errors)



# Integration

## – BuySafe v0.4

- JSON + Struts 2 + database access

## – BuySafe v0.5

- JSON + Struts 2 + database access + client GUI

# Integration problems

- Communicating changes
- Understanding changes
- New technologies
  - Struts 2
  - JSON

# Problems

- Fragmented names of products and contents
- Versions of programs
  - Python 2.7 – 3.3
- Database connection over distance
- Lack of time – exams
- Understanding team member implementation

# Other tools

- ArgoUML 
  - class generation

# Implemented functionality

1. Create/Edit profile
2. Search product
  - By barcode (no scanner)
  - By title
3. View product details
4. Review and rate the product
5. Flag the product

# Still to implement

## 1. Search product

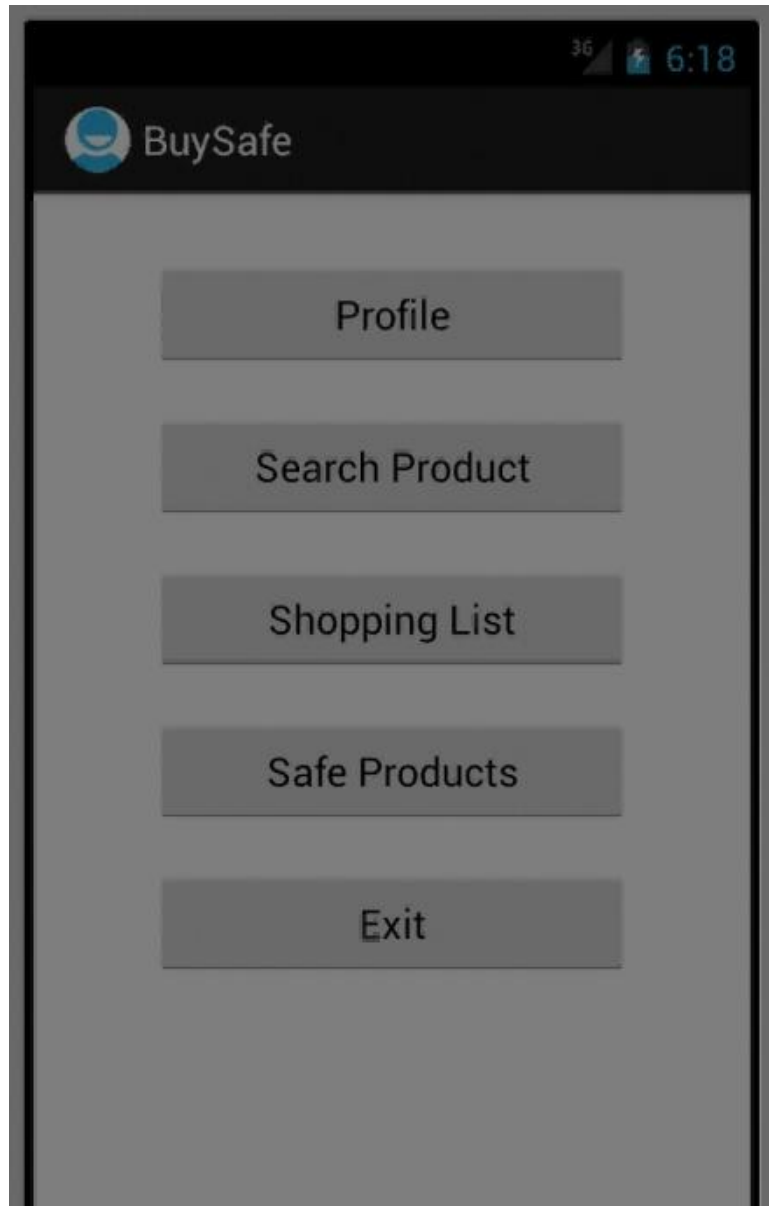
1. By barcode with scanner

## 2. Product comparison

## 3. Product shopping list

## 4. Schedule DB updates (server)

## 5. Real-time parsing from other data sources (server)



Stay healthy, BuySafe



# Questions?