



## Lab 5：面对面需求获取与原型设计



# 实验目标

- 练习面对面交流的方式进行需求获取，澄清用户需求；
- 根据用户需求建立用户故事清单，使用敏捷开发方法为用户故事建模卡片，规划优先级，估计工作量，构思迭代计划；
- 练习使用VersionOne或其他自选的Scrum项目管理工具为项目建立Scrum迭代计划 (可选)；
- 练习使用MockupBuilder或其他自选的原型设计工具为每个用户故事设计原型；
- 练习用户评审。

# 实验内容

- 两个项目小组A和B配合完成本实验，配对方式由教师随机安排；
  - Step 1: 小组A首先扮演项目开发团队的角色，小组B扮演用户团队角色。B组3人根据A组开发的软件系统，构思自己的需求；A组3人通过提问交流的方式，了解清楚小组B的需求，并完成实验任务；
  - Step 2: A组完成迭代计划和原型设计之后，B组对对方的产出物进行评审，评判是否符合自己提出的需求；
  - Step 3: 角色反转，小组B扮演项目开发团队的角色，小组A作为用户团队，针对B组开发的项目进行上述实验。
- Step 1和 Step 3中双方的面对面Q&A讨论环节，应尽可能在实验课上完成（第8周周二下午5-6节），其他部分在课后完成。
- TA会在第8周周二实验课现场旁听各组的Q&A并现场打分。

## Step 1：需求获取

- A组提前构思向用户提问的问题，B组提前构思针对A组系统的需求；
- 面对面Q&A和讨论，A组提问，B组回答，A组记录讨论纪要；
- A组成员内部讨论，完成以下任务：
  - 根据讨论纪要，提取形成用户故事清单；
  - 为每个用户故事形成卡片；
  - 分析用户故事的优先级；
  - 组内成员采用表决和投票的方式，估算各用户故事的工作量；
  - 根据以上结果，设计项目的迭代开发计划；
  - 使用VersionOne或其他自选的Scrum项目管理工具建立和管理迭代计划 (可选)；
  - 使用MockupBuilder或其他自选的原型设计工具对关键的用户故事进行原型设计(GUI)；——注：此处应至少包含5个用户故事的原型设计，且均为优先级最高的用户故事，不能包含登录、用户管理等普遍性的故事。

## Step 2：需求评审

- A组将Step 1的产出物交付给B组成员；
- B组成员对A组的需求获取结果进行评审，发现其中不符合自己想法的内容，形成反馈文档，交付给A组；
- A组针对B组的反馈，对需求获取结果进行修正；
- 以上过程反复进行多次，直到B组不再有反馈为止。
- 上述评审过程，建议A组成员和B组成员在课后寻找公共时间，面对面进行。如果无法做到，通过Email进行。

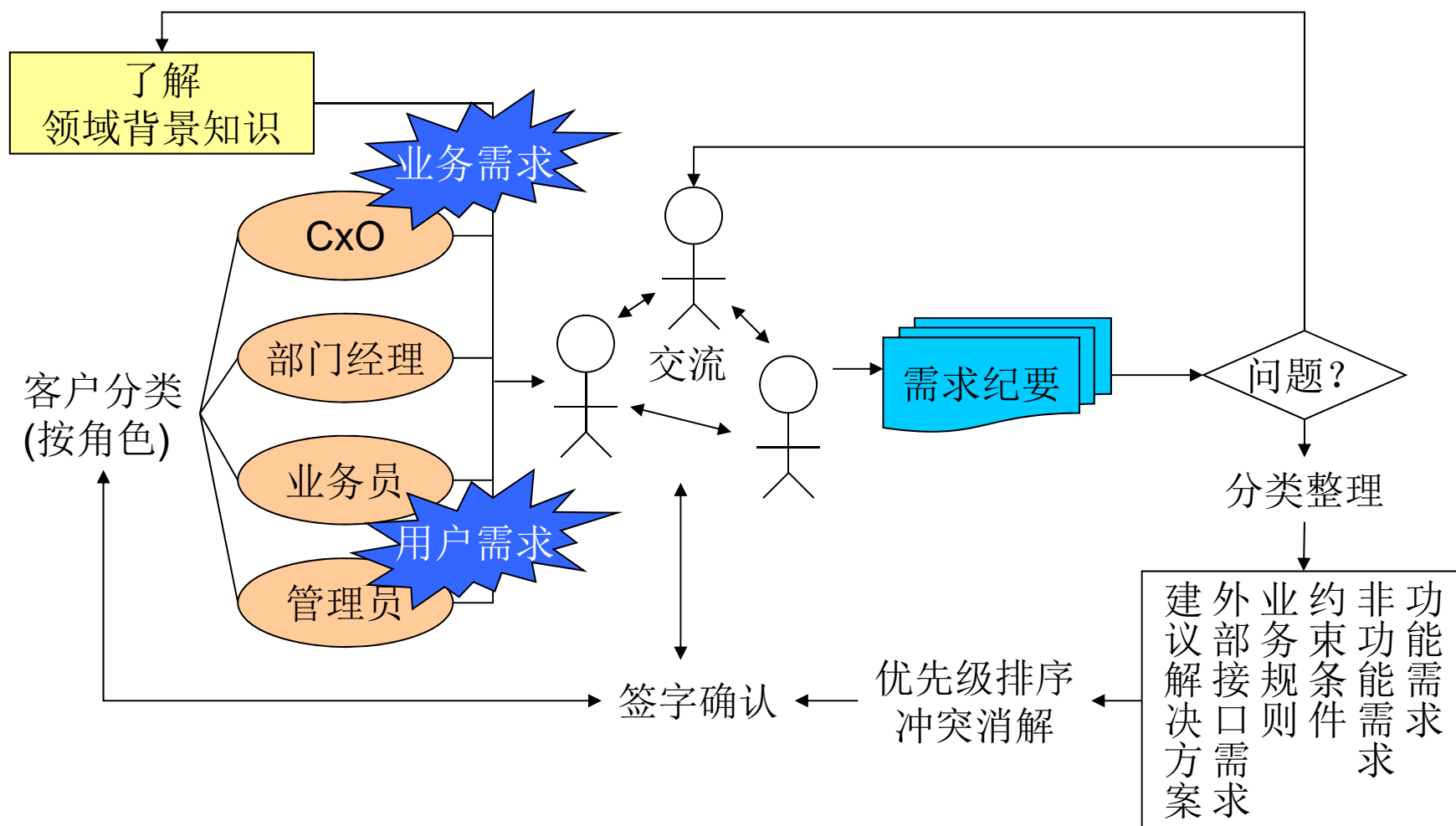
## 注意事项

- 在进行本次实验时，各组已经进入了项目的第一轮迭代，某些用户故事已经开始开展；
- 但对方小组可能提出与本小组之前构思不一致的需求或者新的需求，此需要通过双方协商沟通达成一致；如果用户小组坚持此类需求且本方无充分理由说服对方，则需要后续迭代开发中考虑这些需求；
- 在设计本方的迭代计划时，请使用**2-3**轮迭代：
  - 迭代1：包含了本组第1-7周内已经进入开发的用户故事，并详细标识这些用户故事的实际分工和实际开发进度；同时，也应包含本组第7-11周拟开发的用户故事及其分工、开发进度计划；
  - 迭代2：包含了本组第11-15周的计划；
  - 迭代3：包含了本组在第15周结题验收之后的开发计划。

# 实验报告

- 遵循模板撰写：
  - 项目概述；
  - 需求获取过程中的角色扮演分工情况；
  - 用户故事清单及各自的卡片(正、反)；
  - 用户故事的优先级列表、工作量估算、人员分工；
  - 用户故事之间的导航关系；
- **VersionOne**或其他**Scrum**项目管理工具：
  - Product Planning: 遵照上一步的user story及其信息，加入backlog；
  - Sprint/Iteration Planning: 编制3个sprint的计划，将backlog加入到sprint；
  - 各类图表(storyboard、velocity trend、burndown)；
- **MockupBuilder**或其他自选的原型设计工具：
  - 原型(UI)设计图形

# 面对面访谈



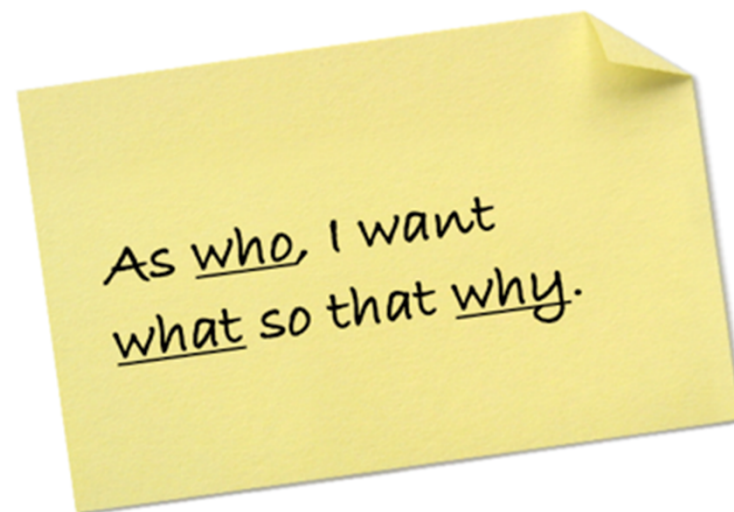


# 用户故事

As a [user role] I want to [goal] so I can [reason]

作为一个<角色>, 我想要<活动>, 以便于<商业价值>

- Who (user role)
- What (goal)
- Why (reason)



As a **registered user** I want to **log in** so I can **access subscriber-only content**.

作为一个“**网站管理员**”，我想要“**统计每天有多少人访问了我的网站**”，以便于“**赞助商了解我的网站会给他们带来什么收益**”。

# 用户故事卡的正面: Conversation

#0001    **USER LOGIN**    Fibonacci Size # 3

As a [registered user], I want to [log in], so I can [access subscriber content].

*For new features, annotated wireframe. For bugs, steps to reproduce with screenshot. For non-functional stories, explain scope/standards.*

**User Login**

Username:

Password:

☐ Remember me

[Forgot password?](#)

[message]

Store cookie if ticked and login successful.

User's email address. Validate format.

Authenticate against SRS using new web service.

Go to forgotten password page.

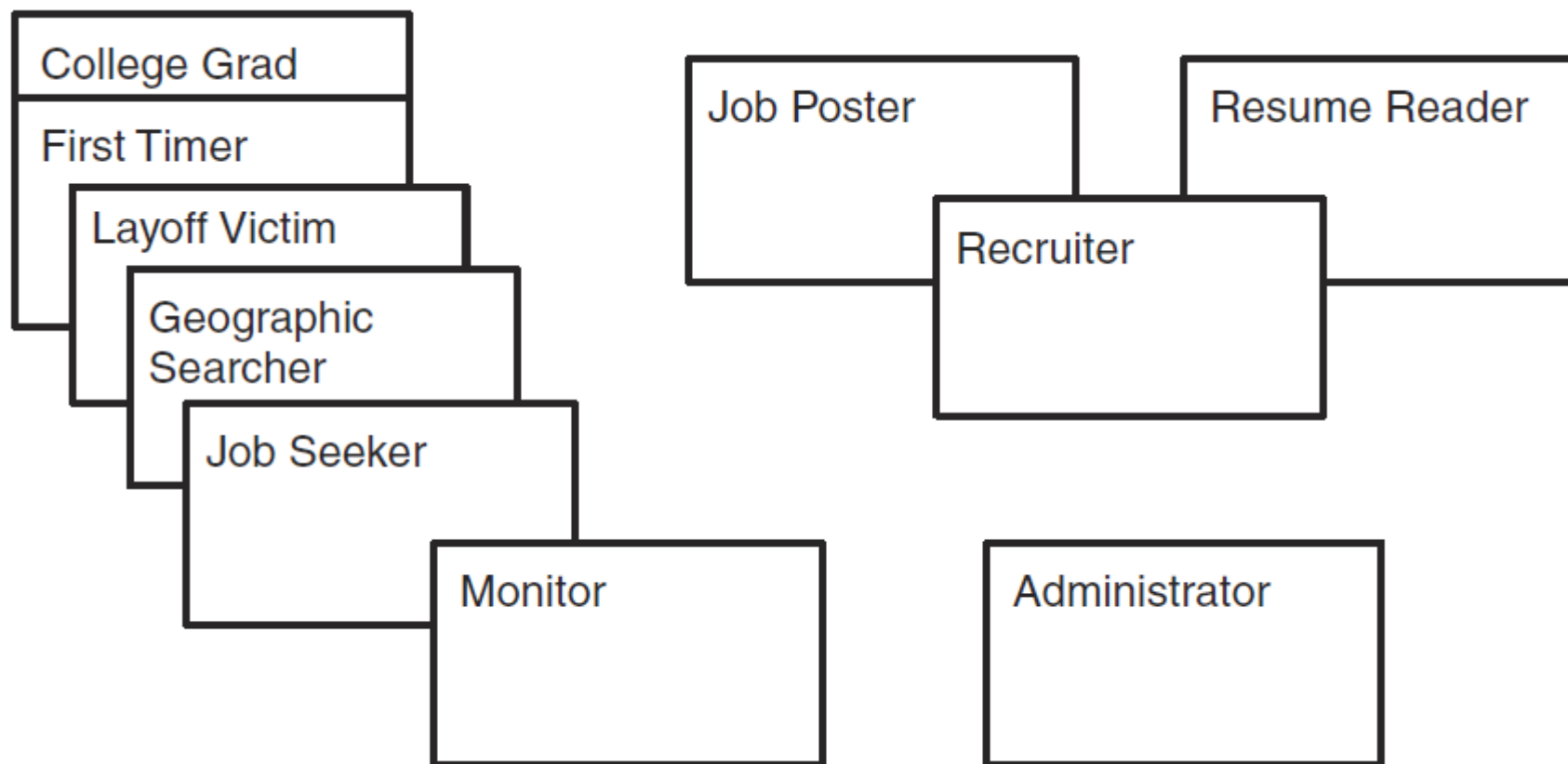
Display message here if not successful. (see confirmation scenarios over)

# 用户故事卡的反面：Confirmation

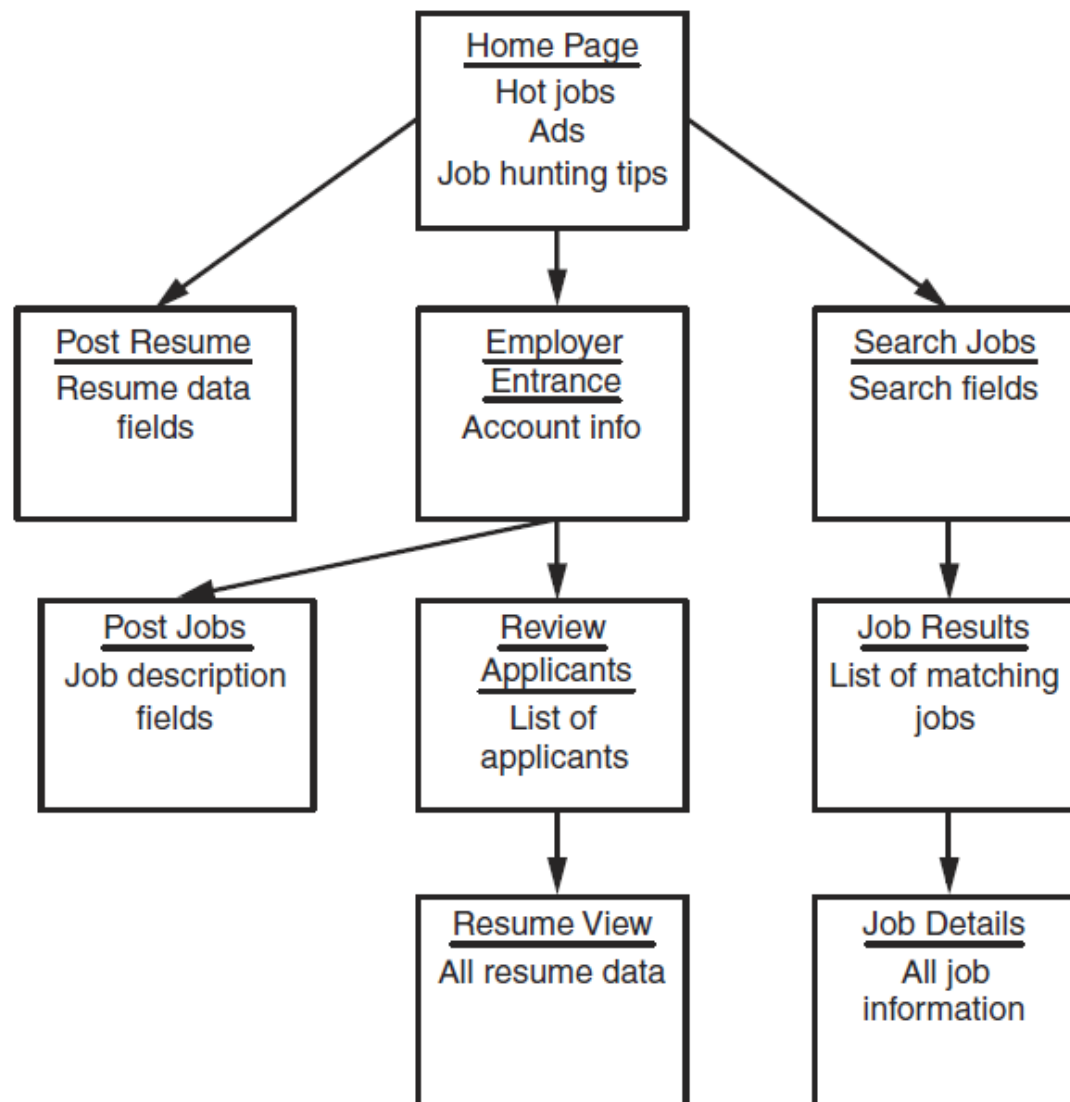
## Confirmation

1. Success – valid user logged in and referred to home page.
  - a. 'Remember me' ticked – store cookie / automatic login next time.
  - b. 'Remember me' not ticked – force login next time.
2. Failure – display message:
  - a) "Email address in wrong format"
  - b) "Unrecognised user name, please try again"
  - c) "Incorrect password, please try again"
  - d) "Service unavailable, please try again"
  - e) Account has expired – refer to account renewal sales page.

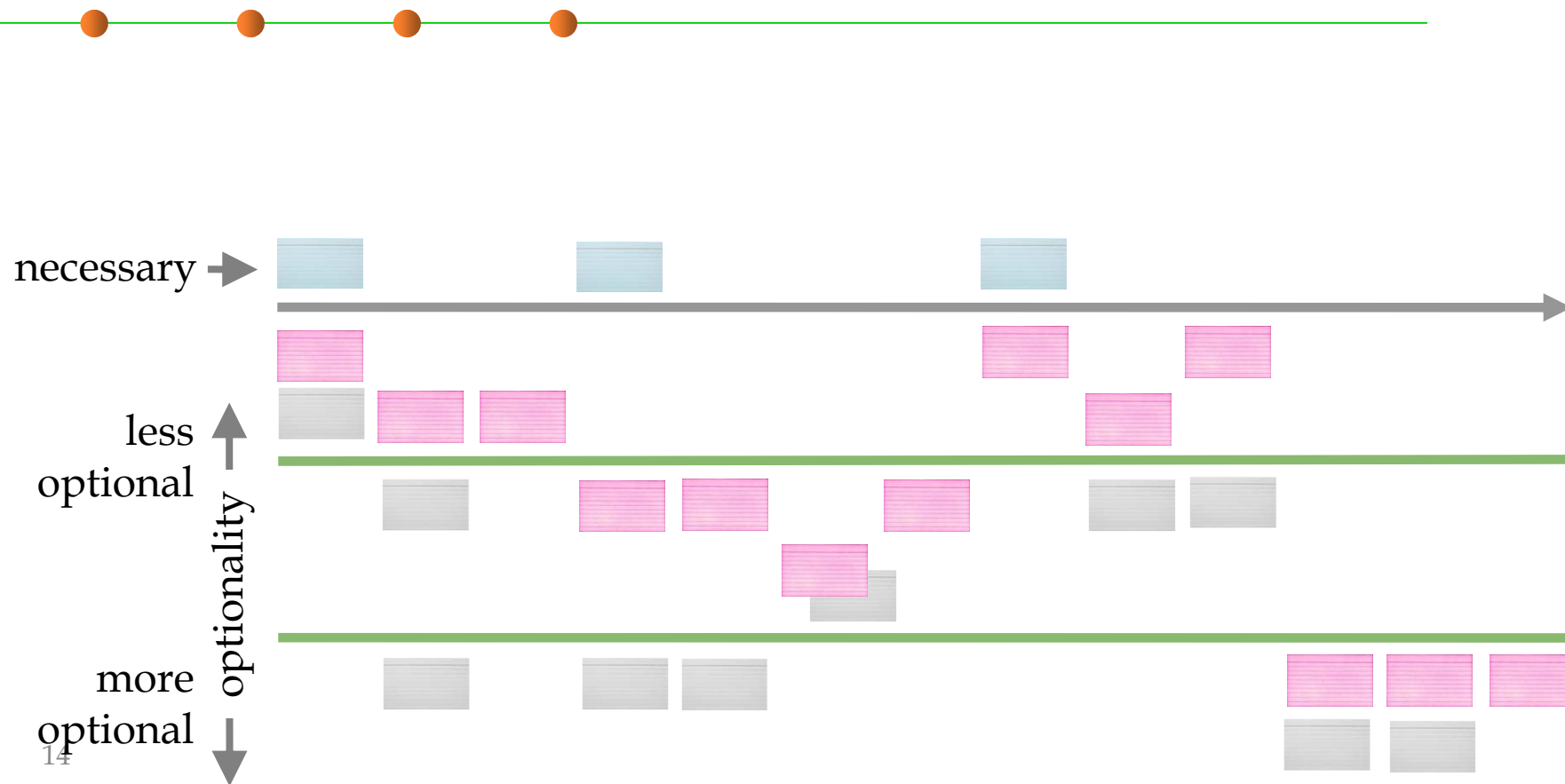
# 汇集全部用户故事卡



# 建立用户故事之间的导航关系



# 为用户故事优先级



## 团队成员估算工作量

- 针对识别出的每一个故事，使用**Story Point**估算其工作量；
  - 故事点：一个达到共识的基本时间单位，例如1天；
  - 使用预定的值：1/2、1、2、3、5、8、13、20、40、80；
- 团队成员分别估计(而不是由项目经理一人决定)，差异较大时面对面讨论，发现分歧，形成共识；
  - 采用“扑克牌”方法。

Story	Story Points
Story A	3
Story B	5
Story C	5
Story D	3
Story E	1
Story F	8
Story G	5
Story H	5
Story I	5
Story J	2

## 任务分配、形成迭代计划

Iteration	Stories	Story Points
Iteration 1	A, B, C	13
Iteration 2	D, E, F	12
Iteration 3	G, H, J	12
Iteration 4	I	5



# 在VersionOne中建立敏捷开发的项目计划



- <https://www.versionone.com/> 运行 Try VersionOne Free



## Create Your Free Account

VersionOne is an all-in-one enterprise agile solution for software organizations scaling agile.

Zhongjie	Wang
rainy@hit.edu.cn	
Harbin Institute of Technology	
Professor	
Business Phone	
China	
Education, Non-p	

By submitting this form you agree to our [Trial Agreement](#) and to receive emails from VersionOne. You can [unsubscribe](#) at any time.

GET IT FREE

申请试用：填写申请信息

通过邮箱获取试用网址，访问并填写信息

如：<https://www51.v1host.com/HarbininstituteofTechnology95/>

1 Choose a username and password

Username

admin

Create a password

.....

Confirm your password

.....

2 Create your member profile

Name

XuHanchuan

Short Name

XHC

Email Address

xhc@hit.edu.cn

Phone Number

0451-86413750

Avatar

选择文件 | 未选择任何文件

Remove

Please select a file that is smaller than 2MB, and is a .jpg/jpeg or .png. Image will be resized to 96x96 pixels.

Continue

# 在VersionOne中建立敏捷开发的项目计划



## 创建一个新项目

VersionOne - Google Chrome  
https://www.v1host.com/HarbinInstituteofTechnology/Default.aspx?Page=Widgets/Details/QuickEditScope&A...

Project Save Cancel

Title:

Parent Project: System (All Projects)

Iteration Schedule: Default Schedule

Level:

Description: 

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Begin Date:

End Date:

Project Path: System (All Projects) roadmap > My First Scrum project roadmap

Status:

Owner:

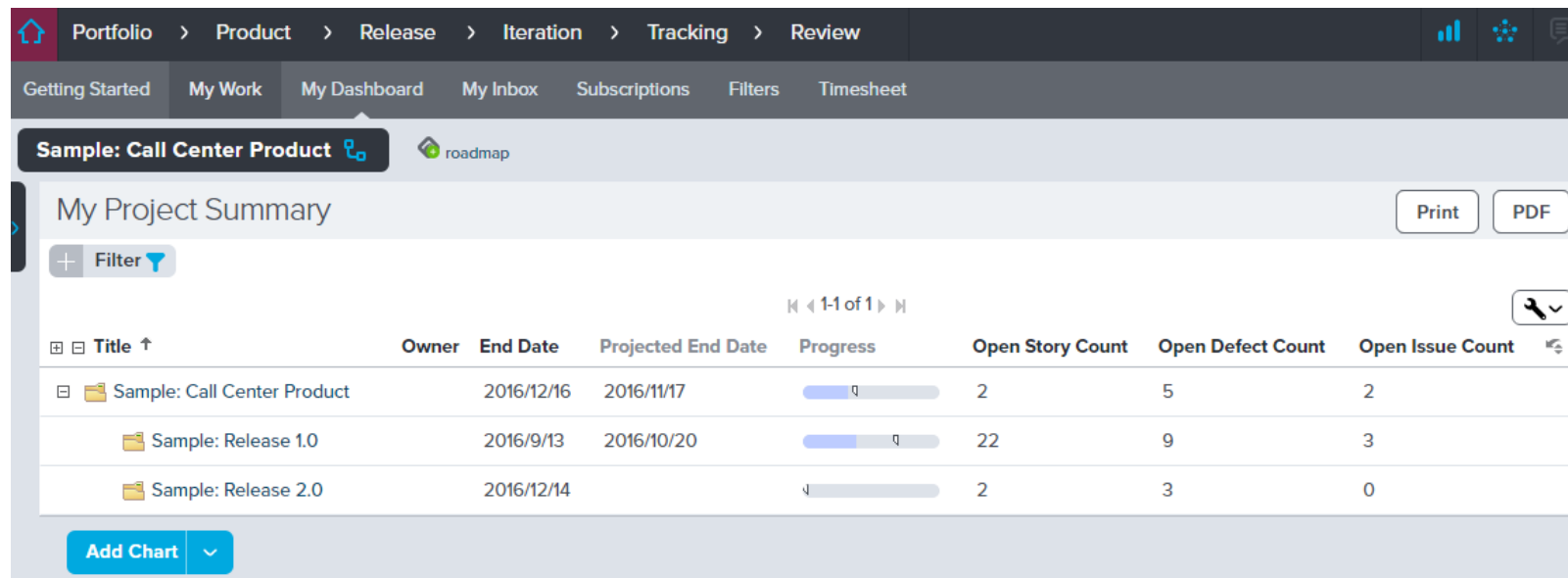
Total Estimate Pts. - Rollup: 21.00

Target Swag:

Target Estimate Pts.:

Test Suite:

# Project Dashboard：查看项目的summary



# 邀请成员加入，建立团队

### Invite Members

Invite MembersCancel

Email Addresses (separated by a comma, semi-colon or new line)

Assign Members to Project (leave empty for no project assignment)

Admin Privileges

System Admin

VERSIONONEultimate

search

SITMAPADMINROOMSRAINYHELP

Back to MainOverviewProjectsMembersTeamsList TypesConfigurationDisplay FieldsDevOpsAccount

MembersGuest CollaboratorsProject AssignmentProject RolesMember Groups

## Members

+ Filter

11 of 11

Name	Username	Short Name	Admin Privileges	Phone	Email	
rainy.wang@gmail.com		rainy.wang	Project Lead		rainy.wang@gmail.com	Edit
Sample: Alfred Smith	samplealfred	Sample: AS	Project Lead			Edit
Sample: Andre Agile	sampleandre	Sample: AA				
Sample: Bonnie BA	samplebonnie	Sample: BB				
Sample: Boris Tester	sampleboris	Sample: BT				
Sample: Claus Customer	sampleclaus	Sample: CC				
Sample: Danny Developer	sampledanny	Sample: DD				
Sample: Norman Newbie	samplenorman	Sample: NN				
Sample: Tammy Coder	sampletammy	Sample: TC				
Sample: Vijay Vistor	samplevijay	Sample: VV				
Zhongjie Wang	admin	rainy				

VERSIONONEultimate

search

SITMAPADMINROOMSRAINYHELP

Back to MainOverviewProjectsMembersTeamsList TypesConfigurationDisplay FieldsDevOpsAccount

## Teams

+ Filter

Sample: Team A

Sample: Team B

Sample: Team C

VersionOne - Google Chrome

https://www.v1host.com/HarbinInstituteofTechnology/Default.aspx?Page=/Widgets/Details/QuickEditTeam&AssetContext

SaveCancel

### Team

Title: UI Development Team

Target Velocity: 1 Pts. per 1 weeks

On average, this team has delivered 0.33 Pts. each week over the last 3 weeks.

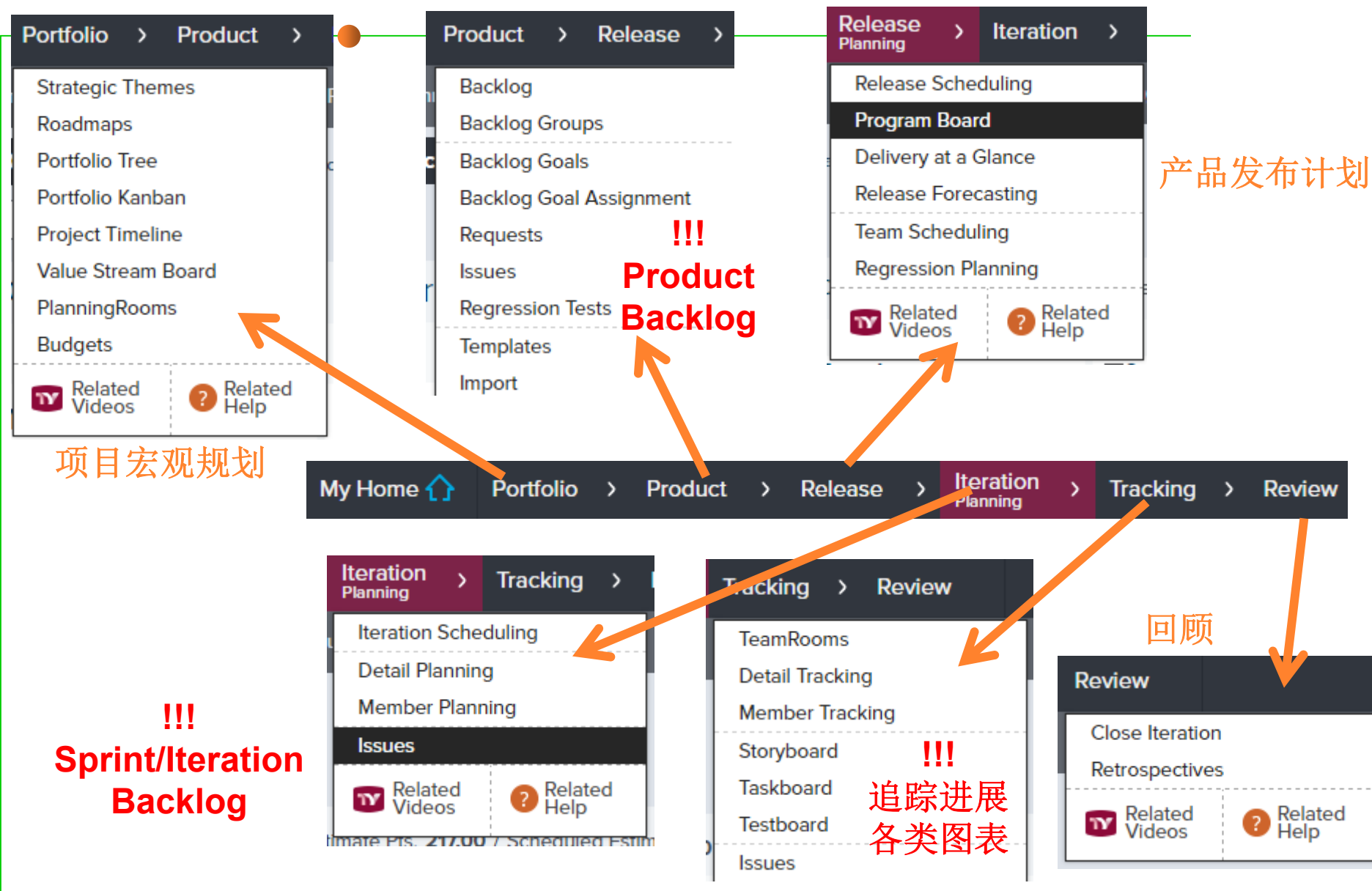
Target Swag: Units per 1 days

On average, this team has delivered 0.00 Swag units every 2 weeks over the last 6 weeks.

B I U S A Formats

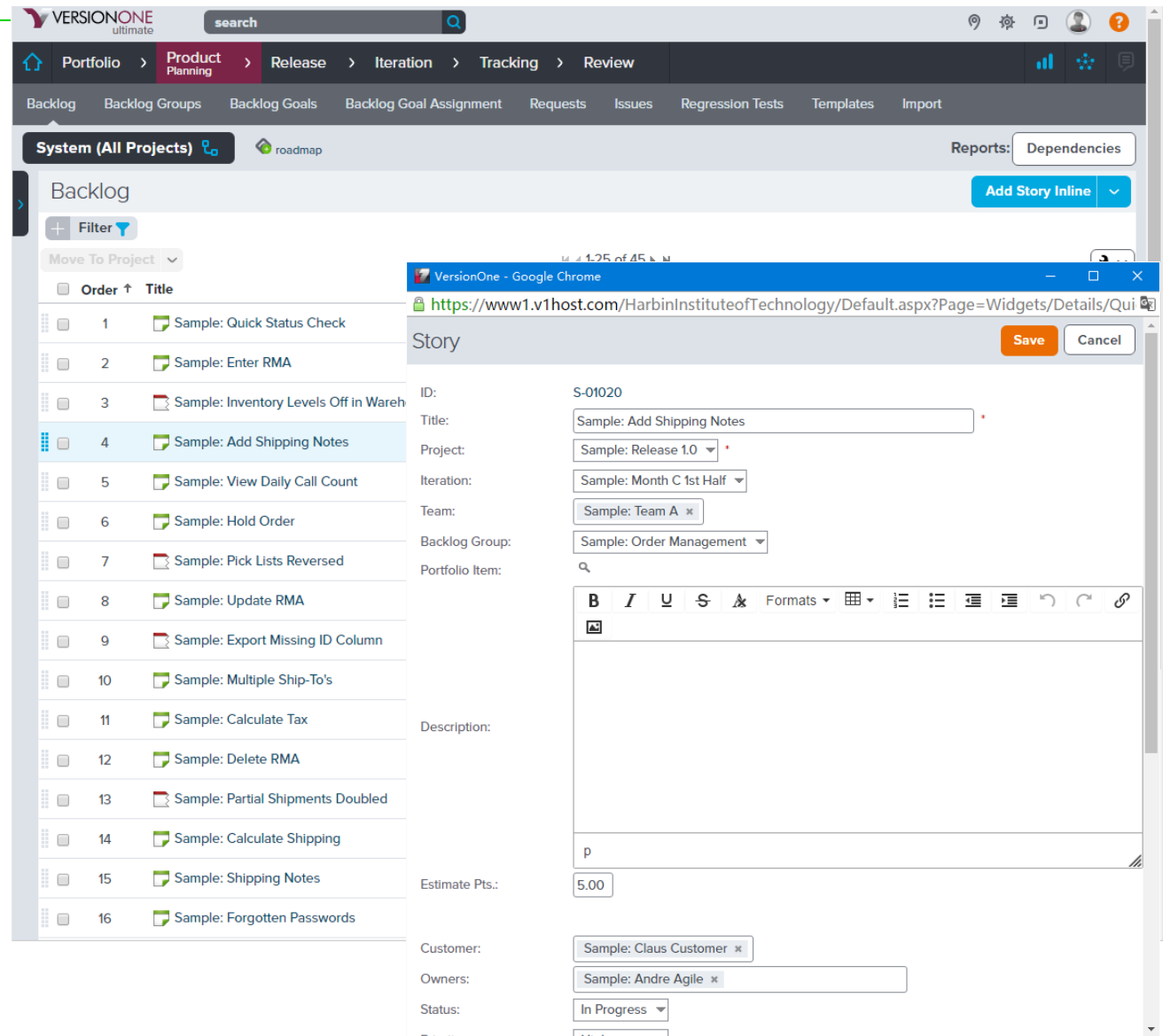
Description:

# VersionOne支持Scrum的生命周期



# 建立Product Backlog

- **Product Backlog:** 每个user story作为一个backlog加入project;
- **Product Backlog** 代表了项目开发任务的全集;
- 每个**user story**具有不同的优先级、工作量估算、来源、当前进度情况等。



- VersionOne - Google Chrome

https://www.v1host.com/HarbinInstituteofTechnology/Default.aspx?Page=//Widgets/D

Backlog Group

SaveCancel

ID:

TH-01001

Title:

Sample: Administration

Parent Backlog Group:

Project:

Sample: Call Center Product

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Description:

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Customer:

Owners:

Source:

Backlog Groups

+ Filter

Close

Customer:

Owners:

Source:

	Title	Owner	Project	Estimate Pts.	Progress	
	Sample: Administration		Sample: Call Center Product	11.00	<div></div>	Edit
	Sample: Reporting		Sample: Call Center Product	25.50	<div></div>	Edit
	Sample: Customer Management		Sample: Call Center Product	29.00	<div></div>	Edit
	Sample: Order Management		Sample: Call Center Product	101.00	<div></div>	Edit
	Sample: Integration		Sample: Call Center Product	60.00	<div></div>	Edit
	Sample: Usability		Sample: Call Center Product	25.00	<div></div>	Edit

# Sprint/Iteration Planning：规划冲刺/迭代

Iteration: Sample: Month C 1st Half Team: (All) Reports: Velocity Trend

Iteration Summary

	Title	End Date	Total Estimate Pts.	Detail Estimate Hrs.	Total Done Hrs.	Total To Do Hrs.	Progress
Last Closed:	Sample: Month B 2nd Half	2016/7/14	27.00	144.00	207.00	0.00	<div></div>
Current:	Sample: Month C 1st Half	2016/7/27	28.00	228.00	229.00	74.00	<div></div>

Backlog Details

+ Filter

Move To Iteration

<input type="checkbox"/>	Title	ID	Owner	Status
<input type="checkbox"/>	Sample: Quick Status Check	S-01017	Sample: Danny Developer	Future
<input type="checkbox"/>	Sample: Enter RMA	S-01019	Sample: Tammy Coder	In Progress
<input type="checkbox"/>	Sample: Inventory Levels Off in Warehouse	D-01001	Sample: Alfred Smith	Future
<input type="checkbox"/>	Sample: Add Shipping Notes	S-01020	Sample: Andre Agile	In Progress
<input type="checkbox"/>	Sample: View Daily Call Count	S-01021	Sample: Alfred Smith	Future
<input type="checkbox"/>	Sample: Pick Lists Reversed	D-01002	Sample: Andre Agile	Future
<input type="checkbox"/>	Sample: Export Missing ID Column	D-01003	Sample: Andre Agile	Done

VersionOne - Google Chrome

https://www1.v1host.com/HarbinInstituteofTechnology/Default.aspx?Page=/V1

Iteration

Save

Cancel

Title:

Sample: Month C 2nd Half

Begin Date:

2016/7/29

End Date:

2016/8/10

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Description:

p

Owner:

Iteration Schedule:

Sample: Call Center Schedule

State:

Future

Target Estimate Pts.:

Total Estimate Pts.:

15.00

Total Detail Estimate Hrs.:

8.00

Total To Do Hrs.:

8.00



# Sprint Story Board

- 每个Sprint中的Story Board

Sample: Call Center Product roadmap

Iteration: Sample: Month C 1st Half Team: (All) Reports: Standup Dashboard

Storyboard Highlight Owner:

+ Filter

(None)	Future	In Progress	Done	Accepted
	<div><div>S-01017</div><div>Sample: Quick Status Check</div><div>Sample: Danny Developer 5.00</div></div> <div><div>D-01001</div><div>Sample: Inventory Levels Off in Warehouse</div><div>Sample: Alfred Smith 1.00</div></div> <div><div>S-01021</div><div>Sample: View Daily Call Count</div><div>Sample: Alfred Smith 5.00</div></div> <div><div>D-01002</div><div>Sample: Pick Lists Reversed</div><div>Sample: Andre Agile 2.00</div></div>	<div><div>S-01019</div><div>Sample: Enter RMA</div><div>Sample: Tammy Coder 2.00</div></div> <div><div>S-01020</div><div>Sample: Add Shipping Notes</div><div>Sample: Andre Agile 5.00</div></div>	<div><div>D-01003</div><div>Sample: Export Missing ID Column</div><div>Sample: Andre Agile 2.00</div></div>	

# 丰富的report和chart

The screenshot displays the VERSIONONE ultimate web application interface. The top navigation bar includes a search bar, a SITEMAP link, and user profile information (ADMIN, ROOMS, RAINY, HELP). The main navigation bar shows a breadcrumb trail: My Home > Portfolio > Product > Release > Iteration > Tracking > Review. The 'Reports' tab is active, and a dropdown menu is open, listing various report types: All Reports, Scorecard, Iteration Burndown, Velocity by Date, Project Burndown, and Velocity Trend. Below the dropdown, there are links for 'Related Videos' and 'Related Help'.

The main content area is titled 'Sample: Call Center Product' and features a 'roadmap' icon. It is divided into two sections: 'Executive Reports' and 'Project/Release Reports'.

**Executive Reports**

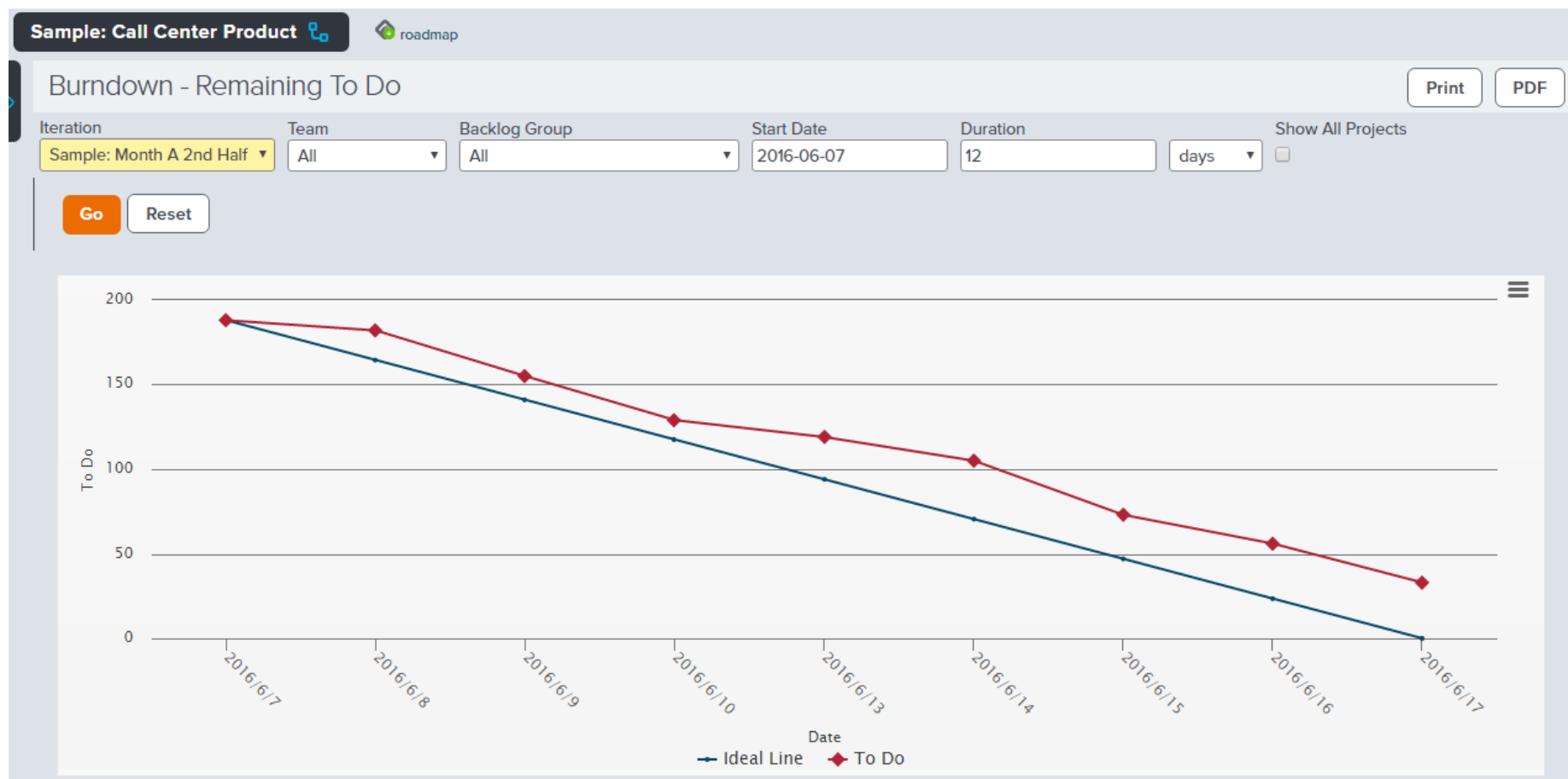
Report Name	Description
Scorecard	Context specific metrics.
Project Dashboard	Complementary set of metrics for tracking Project, Release, Organizational or Program progress <i>Note: to view for a Program, apply a Program filter in the Project Navigator above</i>
Project/Program Summary	Tabular summary of current status plus Gantt chart <i>Note: to view for a Program, apply a Program filter in the Project Navigator above</i>
Project Quicklist	Customizable listing of Project summary data
Program Quicklist	Customizable listing of grouped Projects/Releases
Portfolio Item Bubble Chart	Differentiates Portfolio Items across multiple dimensions at once.
Cumulative Flow	Progress of Backlogs by high-level status over time
Portfolio Item Cumulative Flow	Progress of Portfolio Items by high-level status over time

**Project/Release Reports**

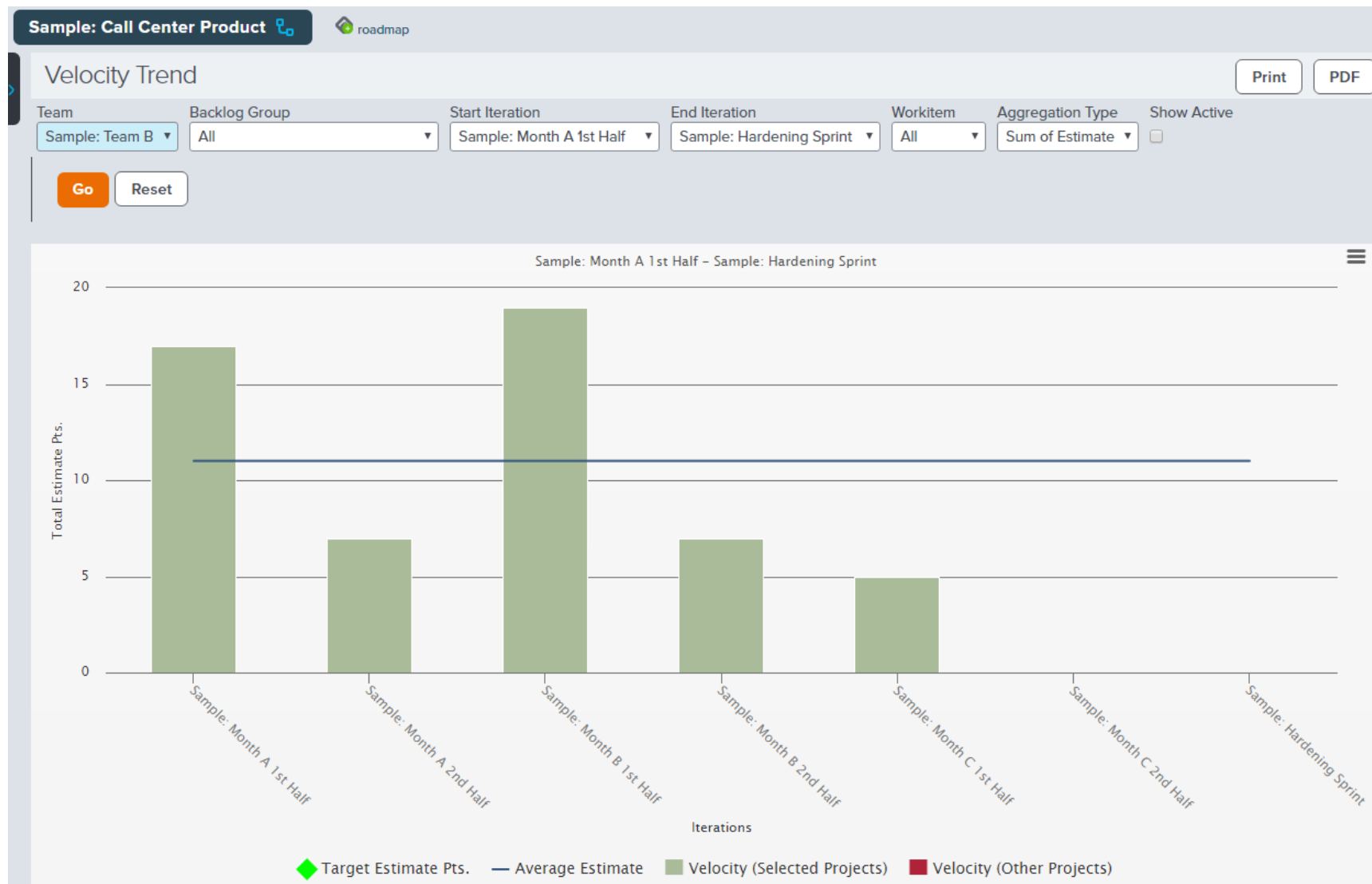
Report Name	Description
Project Dashboard	Complementary set of metrics for tracking Project, Release, Organizational or Program progress <i>Note: to view for a Program, apply a Program filter in the Project Navigator above</i>
Scope Change	Added, removed, and changed features
Project Burndown	Remaining Workitems to be delivered
Velocity Trend	Estimate delivered or planned by Iteration
Velocity by Date	Estimate delivered by Date
Workitem Trend	Progress of open vs. closed features and trend of overall scope
Portfolio Item Cumulative Flow by Status	Progress of Portfolio Items by status over time
Parking Lot	Functional progress of completed Estimate by Backlog Group
Project/Release Roadmap	Plans by Project across Iterations
Backlog Group Roadmap	Plans by Backlog Group across Iterations
Team Capacity	Cross-tabular report showing the Total Estimate or Total Swag commitment for each Team working on Portfolio Items.
Test Trend	Test Status over time
Test Runs	External testing system pass/fail summary

The URL at the bottom of the page is: <https://www1.v1host.com/HarbinInstituteofTechnology/Scorecard.mvc/Index?oid=Scope%3A1026>

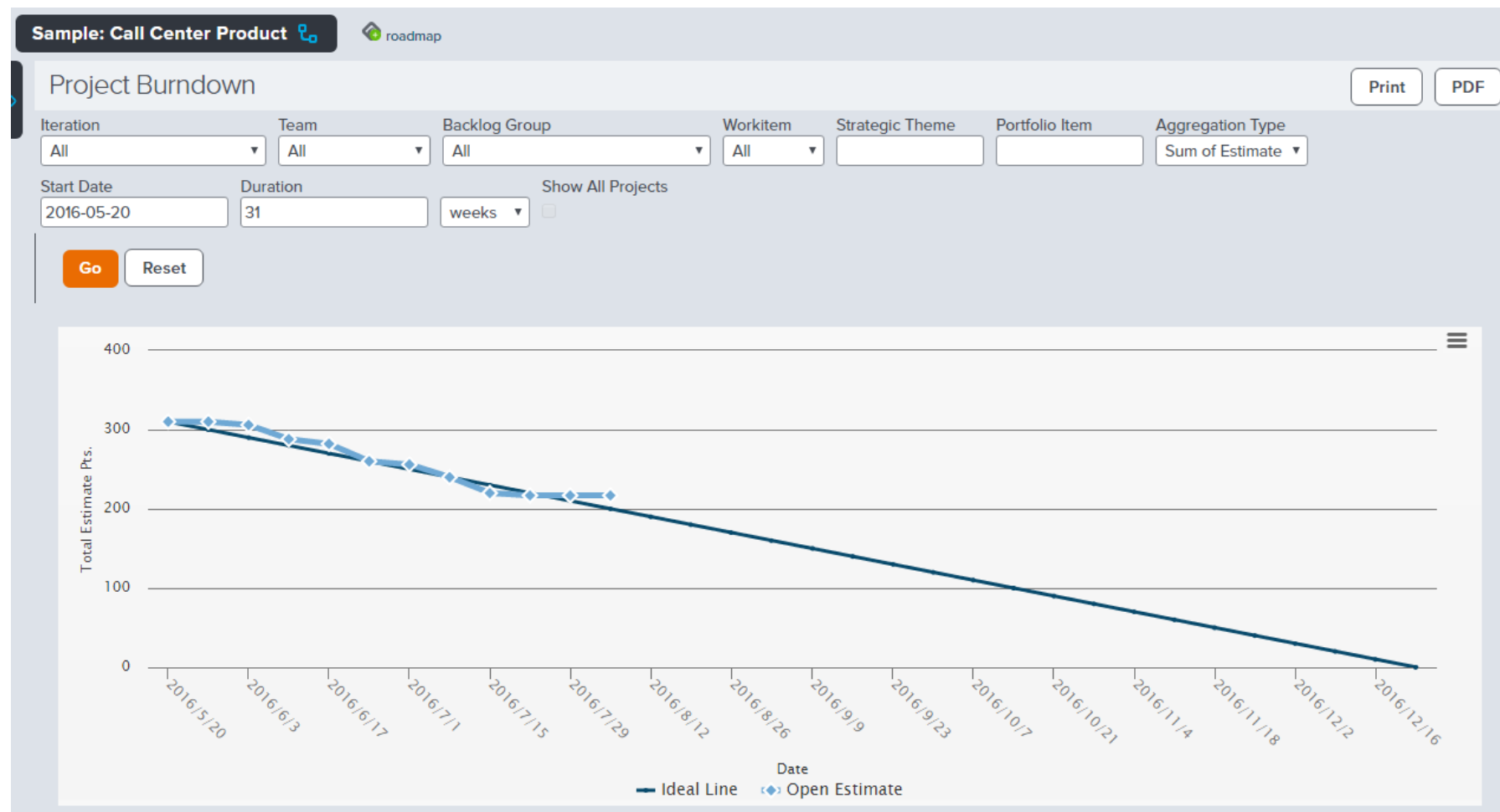
# Sprint Burndown Chart



# Velocity Trends

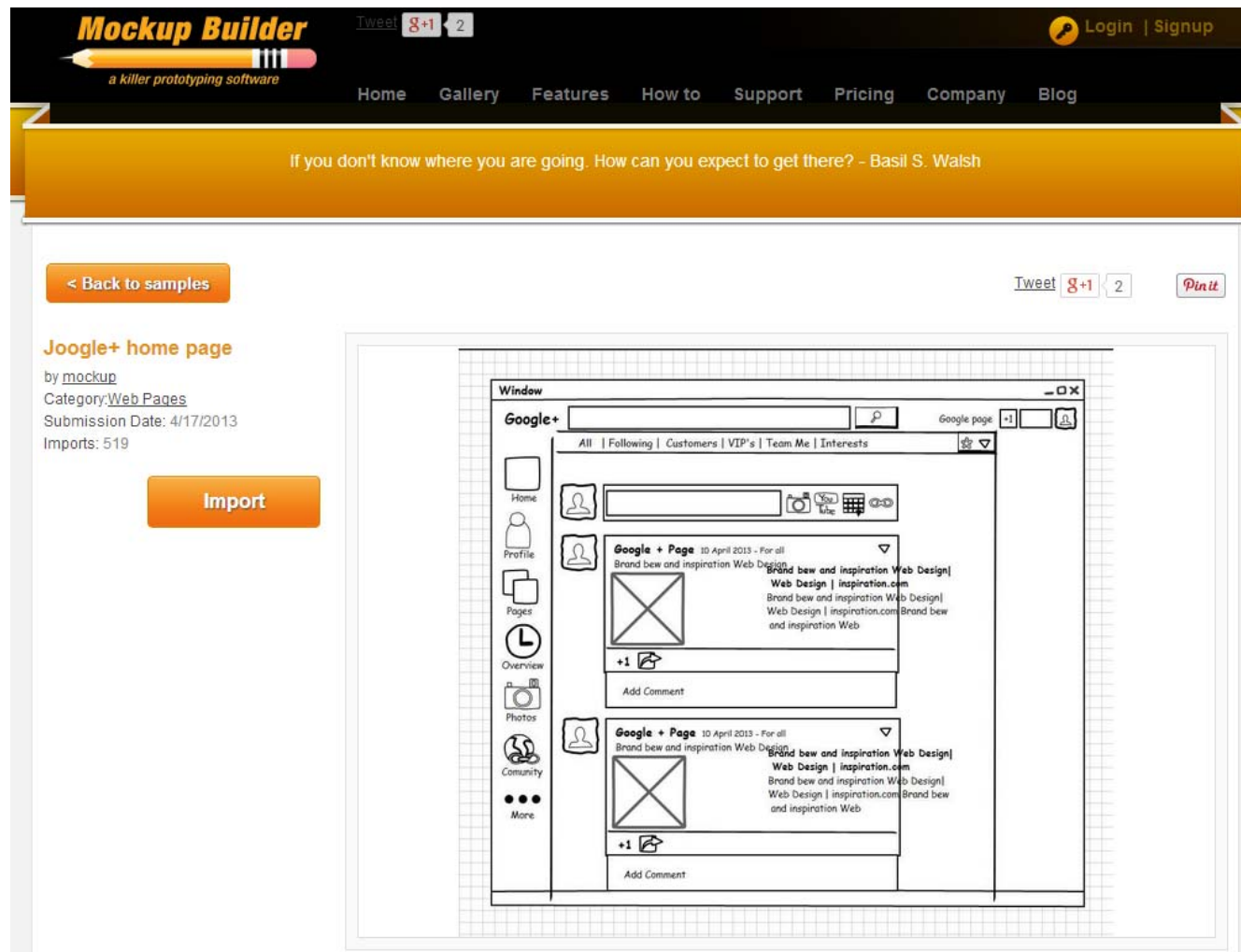


# Project Burndown Chart



# Mockup Builder

- <http://mockupbuilder.com>



# 评判标准

- 面对面方式进行沟通的充分程度、所获取需求的完整性；
  - 所识别的用户故事清单的合理性；
  - 对用户故事进行定义和描述的完整性；
  - 对用户故事的优先级和工作量估算的准确性；
  - 所编制的迭代计划的合理性；
  - 原型设计与需求的一致性；
  - 对工具**VersionOne**和**MockupBuilder**（或自选工具）的掌握程度；
  - 对敏捷开发中的需求管理与项目管理的理解。
- 
- **TA**会在第8周周二实验课现场旁听各组的**Q&A**并现场打分，并根据第10周提交的报告内容再次打分。

# 提交方式

- 请遵循实验报告模板撰写。
- 提交日期：第10周周一晚 (11月6日 23:55)
- 提交一个文件到CMS：
  - 实验报告：命名规则 “学号-Lab5-report.doc”
  - 小组内三人需分别提交（报告内容可以一样）。





哈爾濱工業大學  
HARBIN INSTITUTE OF TECHNOLOGY

软件工程

结束

