Q1: Schedule the design review meeting (1)

1 - We can take our best guess at an estimate on our own
2 - We should work for a couple of days to gauge our progress, and then complete our estimate from there
4 - We should consult a coworker who has more relevant experience on this type of task
3 - We should conduct our own investigation utilizing online research materials and internal documentation
5 - Let's ask our manager how we should go about developing an estimate

Q2: Schedule the design review meeting (2)

3 - Ask all parties to identify a back-up person who could meet during a designated time
3 - See if there is a backup person on the Localization Team that can meet
5 - Set-up video conferencing to include all POC's regardless of their physical location
1 - Agree to postpone the design review for two weeks when all parties have more availability
2 - Discuss the design review over email
3 - Agree to schedule the meeting at Xavier's location an hour away

Q3: Response to Ravi (1)

3 - We should miss the conference and increase the timeline to four weeks because we have four weeks of work
4 - Take a day to investigate whether adding additional resources would allow us to meet the original timeline, and re-evaluate afterwards
1 - Tell the Localization team if can't be done in the timeline, so we should go ahead with the US launch and delay the global launch even though it means adding an additional week of effort to the four week estimate
5 - Take two weeks to create a prototype of the feature to demo at the conference, then take the additional two weeks needed to fully complete the feature
2 - We can still hit the two week deadline without any changes by working harder and putting in overtime

Q4: Response to Ravi (2)

Begin your investigation using the old error logs, but tell Ravi he will need to run the new logs if the old logs aren't useful

Q5: Response to Aaron and Jacob (1)

Can you tell me more about what you're talking about?

Q6: Response to Aaron and Jacob (2)

You said we have an internal database of both digital and physical books. How did we get the physical book data if the Book Database API doesn't give it to us?

Q7: Response to Aaron and Jacob (3)

I recommend you go with Jacob's solution. We should miss the deadline to build our own service and meet all the requirements.

Q8: Roadmap

Since you know more about the programming language than anyone else, you revise the estimate for porting to Java.

Q9: Response to Nadia

What were the internal test case results?

Q10: Most likely cause of German language issue
Site is using proxy server location to determine displayed language

Q11: Most likely cause of invalid recommendation issue
Database field storing user name is too short

Q12: Log trace investigation success
5 - Increase time allotted for testing in overall lifecycle
5 - Update auto mated end-to-end tests to include broader data coverage
3 - Write more unit tests to include edge cases
3 - Have team members perform more manual testing before checking code in
1 - Increase the size of QA team
1 - Have more user testing in beta phase

Q13: Response for meeting the deadline
2 - Work on the project on your own, putting in extra effort to finish on time
3 - Work on the project on your own until Priya is available, then continue to work on it together
3 - Work on the project with Ben, being sure to watch his work closely because of his lack of experience
5 - Tell your manager you will not be able to complete the project in the time available
1 - Cut features from the product so you will be able to meet the two week deadline
4 - Start working on the project right away with Ben. Then ask Priya to contribute what she can when she is available

Q14: Response for completing this work on time
4 - Work with the Customer Incentives Team to identify the critical features that they need by the deadline, and focus on those
2 - Push the timeline back another week to ensure there is enough time for all work to be completed accurately
3 - Ask your whole team for help, explaining the urgency that another team is blocked
5 - Ask your manager for help in determining the best approach to meet the new deadline
1 - Put in extra hours yourself to make sure everything gets done on time

Q15: Upgrade
4 - We should not perform this upgrade at this point in time. We promised the Retail Website Team we would have their new features complete by the proposed deadline. Let's postpone the upgrade to another time
2 - We should not perform the upgrade because it will not have a significant impact on the Retail Website Team's experience. We should focus on the Retail Website Team's requests
3 - We should not perform this upgrade at this point in time. Our top focus is meeting our agreed upon commitment with the Retail Website Team, so we should finish that first. We can focus on the upgrade afterwards by pushing our deadlines for some of our other projects
1 - I think we should perform the upgrade. The right thing to do is push back on the Retail Website Team because it will keep our team from having to do the same work twice
5 - I think we should perform the upgrade. As a compromise, we can include the gift recommendation feature the Retail Website Team wants by the deadline and then complete the upgrade. We can finish the seasonal-based gift recommendations feature after the deadline
2 - I think we should perform the upgrade. The right thing to do is push back on the Retail Website Team because it will allow us to more efficiently serve the customer and the customer will be helped in the long run.

Q16: New product design
5 - F, G
4 - A, B, D

4 - A, D, F
3 - A, C, F
2 - A, C, D, G
1 - A, C, D, G, H

Q17: Response to Priya

I think Service 3 is the problem, but I would like to see another report to confirm.

Q18: Problem with Product.wasPurchasedByUser ()

It has performance issue

Q19: Most effective way of improving Shopping Cart ()

Change the design of Shopping Cart by removing Shopping Cart user and making shopping cart a property of User instead

Q20: Five tests within Shopping Cart Test ()

Fail - Test1
Pass - Test2
Fail - Test3
Pass - Test4
Fail - Test5

Q21: Ask Jacob a question

3 - Do any other projects depend on fixing this problem?
5 - How many customers is this affecting?
5 - How does this affect customers
4 - Are we receiving complaints from customers?
2 - How long will it take to solve this problem?
1 - If I help you with this problem, will you help me finish my work today?

Work simulation(原则有先后顺序)

目前两大做题中最重要原则：

1.requirement 排在第一，deadline 第二。

2.有 manager 出现的选项无脑选 manager，manager 就是一个组的地头蛇。

Amazon9 条主要原则 baidu 1point3acres

原则 1：客户是上帝，requirement 优先，任何影响上帝的事情都不能干，

　　如某个 requirement 影响了上帝的体验，

　　你就是死键盘上也不能砍了，宁愿 miss deadline

原则 2：为长远考虑，即客户几年之后可能会出现的需求也要考虑到，

　　不会为了交付短期的 deadline，

　　而牺牲长期的价值。（比如 global api 和 local api）

原则 3：最高标准，"最高"对应上面的"长远"。

原则 4：一般情况，能请示 manager 就请示 manager，manager 一般不会出错

原则 5：速度很重要，决策和行动都可以改变，因此不需要进行过于广泛的推敲，但提倡在深思熟虑下进行冒险。

原则 6：不需要一定要坚持"非我发明"，需求帮助也是可以的，四处寻找创意，并且接受长期被误导的可能

原则 7：敢于承担责任，任劳任怨，比如领导说谁会 java，你会你就跳出来说我会

原则 8：对问题刨根问底，探究细节

原则 9：服从大局（团队比个人重要）

打分不是关键，排序才是关键。

大部分情况下其实并没有 deadline 和 requirement 谁更好，更多还是在这个组合中你对 ddl 和 requirement 整体的权衡。

每个选项可以评 1~5 分，most effective 是 5，然后 1 是 least effective

刚开始让你看一些介绍 amazon 工作环境的视频

1.上来给一段 video，场景是项目的晨会，就是把 team 正在推进的项目描述一下，期间会有多个项目和你有关系，后面会遇到

2.进入工作界面，可以看到接受到邮件，接收到的 instant message

3.进入工作状态。会有同事给你发邮件，发信息。需要你对他们提出的问题做一些判断，也就是给解决问题的选项评分

4.一个 21 题，有 log 分析 bug，有给报告出问题结论，有判断项目 走向的

情境 1：给图书馆写图书推荐系统，关于 book api

两个人，在表达不同的观点

选择：tell me more

一开始其实每个人都在强调自己是对的，即使有一个人更对一些，也应该选 tell me more（原则 8），选了之后会得到更多信息

情境 2：选图书馆的服务器有没有开放关于实体书的 api

两个小哥讨论图书推荐的 api 应该是自己做还是用现成的。

自己做 api 覆盖面广，但是 due 赶不上，别人做的能赶上 due。

requirement 优先（原则 2），tell me more 层层递进

情境 3：经理说咱们最近服务器老挂，什么情况？

先选看 internal bug 的记录

选 I think service 3 is the problem,

but I would like to see another report to confirm

烙印，义正言辞说自己做了 20 年服务器，不可能有错误，

刚刚调试过服务器，不可能是内部错误。

选自己去查，问题的关键在于不要麻烦别人

增加开发过程中测试的时间/测试覆盖更多 case，放 5

写 Manuel test，放 3
还有个是 unit test，也放 3
增加 QA 的人手，放 1
让客户来当小白鼠发现问题，放 1

情境 4：Amazon recommendation system item，
给你推荐一些你感兴趣的 item，第一个 issue 总是失败，
第二个 issue 总是显示 germany
第一个问题是因为 username 太长所以一直报错。
第二个问题是因为他用 proxy 的 name 来决定是不是语言了。

情境 5：德国 amazon 除了什么问题，让你看 log 回答问题。问你大概哪里除了问题
亚马逊推荐广告，给英国人推了德文广告，给你 log 文件，
问你可能在哪，找 bug in error log

情境 6：员工们讨论 case media network 服务器最近好多 compliants
有德国的，有 invalid recommendation，有返回 404，
找出错原因的相同点
德语因为服务器，一个因为用户名太长，一个是有些用户的语言变成德语

情境 7：具体客户 ddl 只有两周，两个方案，延到四周，做完整。
另一个说先实现一部分功能做个 demo，再慢慢做。
先做 demo 放 5，按部就班四周放 3，通知其他组说两走做不完接着做美国放 1

情境 8：估计项目开发时间
Manager 放 5，找有经验的人请教 4，上网查资料或是先做一段时间再估计都放 3，
还有其他裸上的就 1。

情境 9：一个项目时间表设计
说你是这里最会用什么语言的，比如 java

情境 10：安排会议
视频会议 5 三个老二开会和老二去找老大开会 3 推迟会议和邮件开会 1

情境 13：新产品设计
给 8 周时间，选择题，让你 pick up 一个 features 的组合要求利益最大化，
每个 feature 都有相应的价值，H >> M >> L 都代表远大于
首先 ddl 是前提，中位数不能超过 8 太多，那样的话就算 feature 再多也没意义，
同价值，按照 ddl 排序，同 ddl 按照价值排序。

Work   Simulation

5 最好，1 最差，视频可以反复看。
目前两大原则:1.requirement 排在第一，deadline 第二，林丹不能出轨第 三。2.有 manager 出现的选项无脑选 manager，manager 就是一个组的代言 人+保护伞，大哥自己人.

第一个视频题 电子书 API

第一个情境是给图书馆写图书推荐系统，关于 book api 的题目 第一问让两个人继续说 大约是两个人在对一个项目发表不同的观点。感觉选择 tell me more 的选项是最正确的 因为一开始基本上只是那两个人在强调自己是对的。你选了 tell me more 之后他会具体告诉你他们 在说什么。我当时选了其中的一个人得观点，结果后面接的就是"等等他还不知道全部的信息"然 后他就继续把其他你需要知道的信息告诉你

第二问选图书馆的服务器有没有开放关于实体书的 api 一是两个小哥讨论图书推荐的 API 应该自己做还是用现成的。自己做的 API 涵盖面广但是 due 赶不上了，别人做的只有电子书，但是可以赶上 due，就是明年才能涵盖纸质书。book api 那道选实体书 API, 因为在满足用户需求前提下，deadline 可以暂时忽视。

俩个年轻老白讨论客人要强烈要求有硬皮书的推荐，但服务器里只有 digital 版本的，到底要不要 加这个功能，感觉后面的视频是根据你的选择来的（有待考证）

要选实体书 API

估计项目开发时间

一上来菜鸟 Ben 说，咱们有个项目，都没做过，不知道能不能赶上 due，这 时候要怎么估计开发的进度（时间）。
Manager   5
找有经验的人请教   4

上		网		查		资		料		3
先	做	一	段	时	间	再	估	计		3

还有其他课上 1。

一个项目时间表设计

说要做个新的 project，一个 senior 列出来一个时间线，什么第一周做这个，第二周做啥的，说你是这里面最会用这种语言的，比如 JAVA。这是道单选题。选择"因为俺是新来的，认怂找 manager 换人人干"。

安排会议

要求说两周之内要把三个组的老大叫一起开个会，这时候另外两个组的老大跳出来嚷嚷一个说哎呀我好忙啊，另一个说我办公室在外地，开车一个小时要不你们过来？这两孙子，可惜下面没有把他们都开除的选项。

三		个		老		大	开	视		频	会	议	5
两	个	老	二	一	小	时	去	外	地	找	老	大	3
三		个		老		二	开		会				3
推			迟		会			议					1

发邮件开会 1

两周做四周的活

这题说做个 API，原本是只用在美国市场，结果现在改成全球了，Ravi 说这下两周之后的一个会议要展示这个 API 效果，但是要做四周的活，这可咋办。

加	班	拼	命	搞	定	它		5
两	周	做	个	demo，	之	后	的 慢 慢 做	5
按	部	就	班	的	4	周	完 成 任 务	3

通知其他组说两周做不完，接着做美国市场的 1

搞个数据库

Senior:

I am an expert in metric generation and have set up the database we will be using. I have done lots of queries on the database so I could really help here. I will not be available until the middle of next week, but with my help you might be able to finish in two weeks.

Ben:

I am not very familiar with this database and don't have much experience in metric generation. Working together, we might be able to do this in two weeks. Keep in mind I don't know as much about this as Priya, so we will have to be extra careful to make sure everything works correctly.

Please rate the effectiveness of each response option for meeting the deadline.

A. Work on the project on your own. putting in extra effort to finish on time. **1 – Slightly Effective**

B. Work on the project on your own until Priya is available. then continue to work on it together. **3 – Moderately Effective.**

C. Work on the project with Ben being sure to watch his work closely because of his lack of experience **3 – Moderately Effective.**

D. Tell your manager you will not be able to complete the project in the time available. **1 – Ineffective**

E. Cut features from the product so you will be able to meet the two week deadline. **1 – ineffective**

F. Start working on the project right away with Ben Then ask Priya to contribute what **4 – Hightly Effective**

两周时间搞一个数据库，菜鸟 Ben 可以帮忙，就是人菜，大腿 Priya 可以帮忙，但要等一周半。

报告 manager 5

与菜鸟合作再等大腿 4

合作等大腿 3

自己单干 1

cut feature 1

第 二 题　　due 改 成 一 周

找　　manager　　5

和 其 他 团 队 沟 通 确 认　feature　4

内 部 团 队 一 起 干　　3

自 己 加 班　　1

把 DDL 推了 1

系统是否升级

Hi　　　　Team.
As you know. our Retail Website Team client has asked that we produce new features for their product indexing service.
They requested a feature allowing us to recommand items based on gifts they have purchased. This would have a big benefit for all custome recommendations.
They also wanted to build in seasonal–based gift recommandations, which would benefit about 20% of customers.
I have heard several of you suggest that this may also be a good time for us to migrate the Retail Website Team over to our new service.
If we don't perform the upgrade now, we will have to create the new features twice – once now in the legacy service and again in the new service after the migratoin.
This could impact our work on feature projects.

This legacy product recommendations service was a batched service that had a week lag, but our new system is much quicker and more dynamic.
Our internal testing indicates our new system is ready to be pushed to the Retail Website as a whole.
The benefits of this migration for the client seem pretty straightforward – the new service will reduce operational issues and will increase speed of issue resolution.
It is import to note that these benefits will help our client indirectly by helping us. Essentially, this migration will allow us as the support team to be more effective and efficient, making our lives easier.
The client may see more accurate data when they call us, although there will not be a noticeable difference in the data format.

The question here becomes our timeline. We have committed to building two features that will each take about a month, but cannot be worked on concurrently. Our proposed upgrade and migration would require an extra two months of work. forcing us to miss our deadline.
Keep in mind the Retail Website Team did not request this upgrade What do you all think our best course of action here is? Do any of you have a recommendation on what you think we should do here?

Best regards
Nadia

Questions:

I think we should perform the upgrade. As a compromise. we can include the gift recommendation feature the Retail Website Team wants by the deadline and then complete the upgrade.
We can finish the seasonal–based gift recommendations feature after the deadline. 2

I think we should perform the upgrade.
The right thing to do is push back on the Retail Website Team because it will allow us to more efficiently serve the customer and the customer will be helped in the long run. 2

I think we should perform the upgrade' The right thing to do is push back on the Retail Website Team because it will keep our team from having to do the same work twice. 1

We should not perform the upgrade because it will not have a significant impact on the Retail Website Team's experience We should focus on the Retail Website Team's requests. 2

We should not perform this upgrade at this point in time. Our top focus is meeting our agreed upon commitment with the Retail Website Team. so we should finish that first. We can focus on the upgrade afterwards by pushing out deadlines for some of our other projects. 3

We should not perform this upgrade at this point in time. We promised the Retail Website Team we would have their new features complete by the proposed deadline. Let's postpone the upgrade to another time. 4

推荐系统有抱怨

15 Customer Complaints on Recommendation Service
Priya Senior SDE
We have been receiving a lot of customer complaints over the past three days about problems on pages related to your new Recommendation feature. It is likely being caused by one of the three services you're using. There have been no recent updates to the services and we have ruled out all external factors. This issue is affecting customers, resulting in our product order rate dropping. We really need to solve this as quickly as possible. The reporting team generated an error report(see attached), let me know what you think.
Thanks,
Priya
Based on the data in the Error Rate over Time report, how would you respond? Please select only one response option.
Identify Service 1 as the problem
Identify Service 2 as the problem
Identify Service 3 as the problem
I think Service 1 is the problem, but I would like to see another report to confirm
I think Service 2 is the problem, but I would like to see another report to confirm
选 I think Service 3 is the problem, but I would like to see another report to confirm
I dont know which service is the problem. I want to request another report to get additional information.

选 I think Service 3 is the problem, but I would like to see another report to confirm，service 3 一直在涨
这题有视频，一个经理讲咱最近服务器总是挂，什么情况？
先选看 internal bug 的记录。
给了一张图，3 个 service 最近表现，service 3 最近几天一直在涨。
选 I think service 3 is the problem, but I would like to see another report to confirm。

然后一个印度工程师说自己写了 20 年 server，绝对不会错。选项纠结点在 于，这边我来查，那边他查不查，虽然我倾向于选让他也查，但是这次选他 不查。那个著名的 he is not helpful 就不要选了吧。接下来的题目是，既然这次捅了这么大的篓子，那么应该怎么痛定思痛呢， 这题原则就是能自己解决就别麻烦别人。

增加开发过程中测试的时间 / 测试覆盖更多 case ，放 5
写 Manuel test ， 放 3
增加 QA 的人手，放 2 让客户来当小白鼠发现问题，放 1

新产品设计

Hi

For the new social network integration product, Ravi is the senior engineer and Jane is the product manager. To help us decide what features to include in the time we have, I asked Ravi to estimate the time to develop each feature and I asked Jane to provide a rough prioritization of each feature. I put their responses in a chart on the Wiki. The file is named "Social Network Integration Design." I'm really swamped today so can you take a look at the chart and give me your recommendation for what features we should include? We have 8 weeks to get something up and running.

Thanks, Nadia

```
1-----------------------------------------------------------------------
2---------------
3|    Feature                         | Engineer Estimate |    Product
4Manager's
5|                                    | of Time to Develop |
6Prioritization of Benefit
7-----------------------------------------------------------------------
8---------------
9| A. Add professional social networks  |                  |
10|  to already existing social networks  |   1 to 2 weeks   |    Medium
11----------------------------------------------------------------------
12---------------
13| B. New research algorithm that improves  |               |
14| accuracy of recommendations by 10%  |   4 to 6 weeks   |     High
15----------------------------------------------------------------------
16---------------
17| C. Producing recommendation list more  |                |
18| quickly and improve operations  |   2 to 4 weeks   |     Law
19----------------------------------------------------------------------
```

```
20---------------
21| D. Incorporate a previously-developed   |                    |
22|  machine learning algorithm against books|                  |
23|  to better understand what people may be |                   |
24|  interested in.                         |  2 to 4 weeks      |     Medium
25-----------------------------------------------------------------------------
26---------------
27| E. Open it up externally — allow other  |                    |
28|  companies (e.g., Spotify) to access    |                    |
29|  Amazon recommendation algorithms       |  5 to 9 weeks      |     High
30-----------------------------------------------------------------------------
31---------------
32| F. Price-sensitive recommendations —    |                    |
33|  recommendations close to value of      |                    |
34|  purchases                              |  3 to 5  weeks     |     High
   -----------------------------------------------------------------------------
   ---------------
   | G. Incorporate a previously-developed   |                   |
   |  machine learning algorithm against     |                   |
   |  movies to better understand what       |                   |
   |  people may be interested in.           |  2 to 4 weeks     |     Medium
   -----------------------------------------------------------------------------
   ---------------
   | H. Integrate with an external company's |                   |
   |  popular feature                        |  1 to 2 weeks     |     Low
   -----------------------------------------------------------------------------
   ---------------
```

规则是有 high 先 high，low 的尽量不做，按照次序来比较。所以最佳的是 FG，之后都是 A 开头，那就挑，ABD 第二，ADF 第三，ACF 第四，ACDG 和 ACDGH，按照 requirement 的话，应该把 ACDGH 放在最下面，H 是 low。维持原判，能 high 就 high。

代码分析

17   Last   part   of   code

Aaron

Here's the last bit of code for the social network project. The code snippet is attached to this email.

Sorry this took so long to finish, but it turned out to be more difficult than I thought. Can you just give it a quick check to make sure everything looks okay? I'm leaving for the day, so I'll see you at the demonstration in the morning! Thanks!

What is the problem with the Product.wasPurchasedByUser() method? Please select only one response   option.

A.   It   will   run   slowly   because   algorithm   complexity   is   O(n^2)

B. It will run slowly on large datasets because more than one user could have purchased the same product.
C. It will run slowly because algorithm complexity is O(n^3)
D. It has performance issues.
选最长

What is the most effective way of improving the ShoppingCart() class for the long term? Please select only one response option. ?

A. ShoppingCart should not override the user property every time new product is added to it.
B. Make ShoppingCart a property of Product class to improve performance.
C. Change the design of ShoppingCart by removing ShoppingCart.user and making shopping cart a property of User instead.
D. Product should have getUser() method so that we know what user has added it to his/her shopping cart.
选最长

Please indicate whether the five tests within the ShoppingCartTest() class would pass or fail. Assume each unit test is independent of the others. Please provide a response for each test.

Test1
fail
Assert.assertTrue   user1.getDefaultPaymentMethod().getIsDefault();
getDefaultPaymentMethod() 返回 null

Test2
pass
PaymentMethod   method1   =   new
PaymentMethod(PaymentMethodType.CREDIT_CARD, " myPersonalCard ", true);
Assert.assertSame method1, user1.getDefaultPaymentMethod()

Test3
pass
Assert.assertEquals   Bob   user2.getName()

fail

Assert.assertEquals   alice@foo.com   user1.getEmail()

构造函数有四个参数但是函数里只给其中三个赋值里，email 没有赋值。

Test4
pass
Assert.assertSame(thumbnail, myProduct.getImages().get(0))

Test5
fail
Assert.assertTrue(10.75   ==   product.getPrice());

有一个 setPrice 方法有一个 overload，一个参数是 int，一个参数是 double，所以 double 会被转型   为   int

setPrice 可以是 double 或者 integer，但是 getPrice 是返回 integer

Fial: 1,3,5,

帮   人   修   网   站
Problem   with   the   website
Jacob

Are you still here? I just learned there might be an issue with the website. This could be a real problem but I'm not sure what's going on. No one else is here right now so I could use your help. If you were to ask Jacob a question about the issue, how would you rate the importance of each of the following questions?

Question	Rating
Do any other projects depend on fixing this problem?	3
How long will it take to solve this problem?	4
How does this affect customers?	5
Are we receiving complaints from customers?	5
How many customers is this affecting?	5
If I help you with this problem, will you help me finish my work today?	1

误解 Deadline

Hi Nadia.

It looks like there has been a miscommunication. Unfortunately, the Customer Incentives Team is dependent on your piece of this project in order for us to begin our piece. For the project to still meet the stakeholder timeline. we will need your team to complete your section in the next one week rather than two weeks. I hope this doesn't cause too much of a problem. Best regards.

Questions

Ask your whole team for help, explaining the urgency that anohter team is block. 5

Work with the customer Incentives Team to identify the critical features that they need by the deadline, and focus on those. 4

Push the timeline back another week to ensure there is enough time for all work to be completed accurately. 1

Ask your manager for help in determining the best approach to meet hte new dealine 5

Put in extra hours youself to make sure everything gets done on time. 3