



COM5940 NEW MEDIA BUSINESS MODEL & INNOVATION:

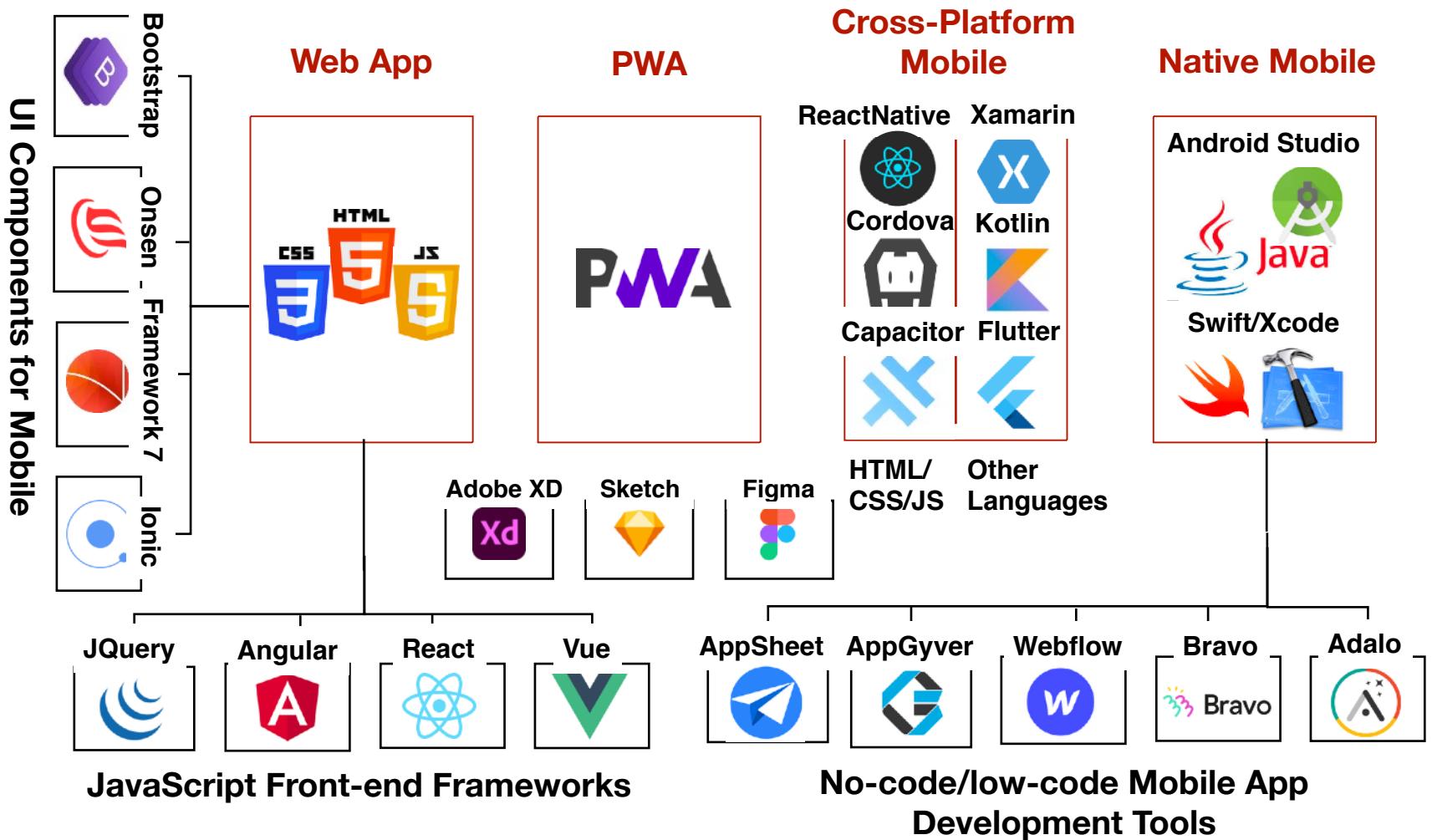
LESSON 4 - BUSINESS MODEL DESIGN WITH LEAN METHOD

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Chinese University of Hong Kong

Today's agenda.

1. 3 Steps to turn your website into a **PWA**.
2. From **UX journey** to **business model** design.
3. The **Lean** method and **Agile** product development using **SCRUM**.
4. Implement SCRUM with **Airtable automation**.

3 Steps to turn your website into a PWA.



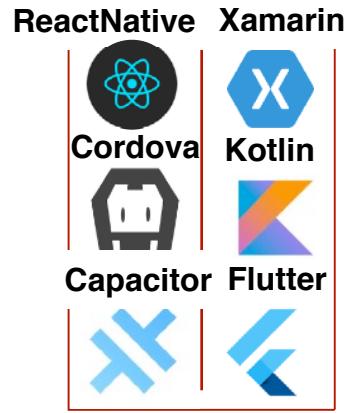
Web App



PWA



Cross-Platform Mobile



Native Mobile



Web App



PWA



100 *SECONDS OF*

JS

PWA *AND BEYOND!*

<https://www.youtube.com/watch?v=sFsRylCQblw>

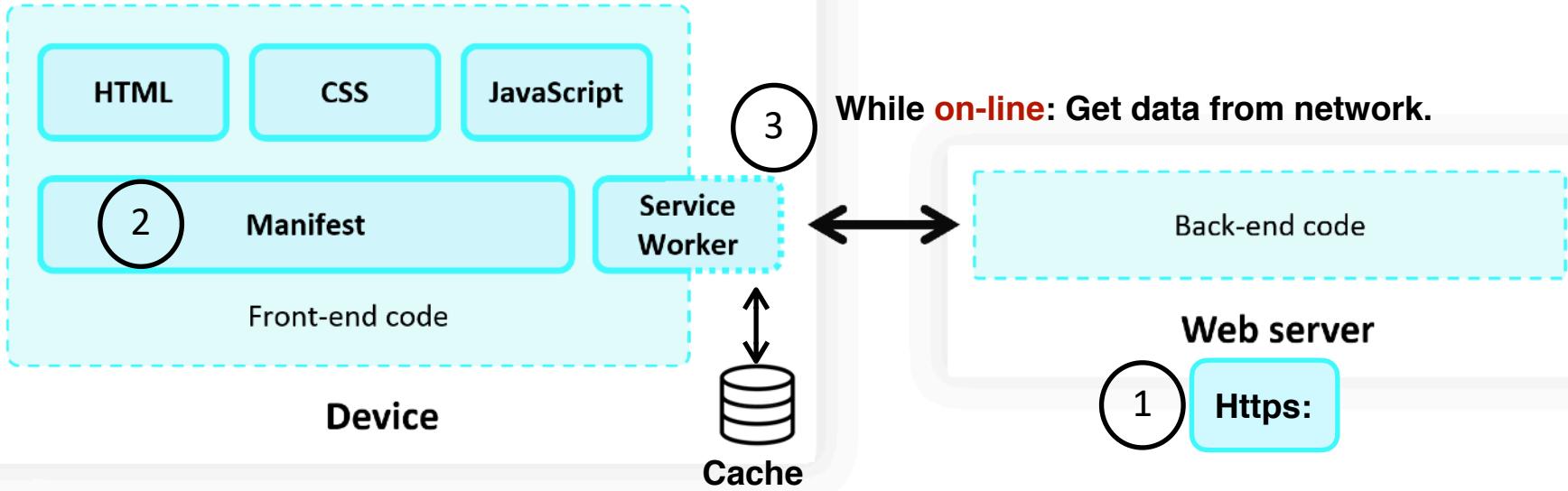
1. Require HTTPS to Convert Your Website to a Progressive Web App.

2. Create a Web App Manifest.

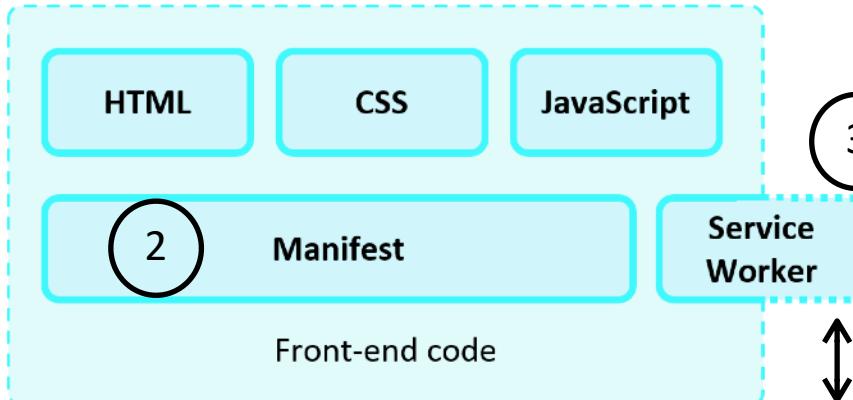
- A JSON text file that contains all the meta data of your PWA: *description, scope, start_url, name, images, display, short_name, etc.*
- A link to this JSON text file should be placed in the `<head>` of all your PWA's pages:
`<link rel="manifest" href="/manifest.json">`

3. Set Up Your Service Worker.

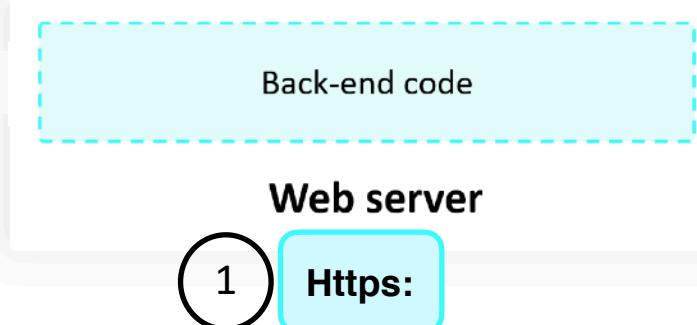
- A service worker is a JavaScript file, placed in your app's root, that plays the role of a “middleman” between the browser and the host. The one which, once installed in the supported browsers, intercepts and responds to the network request in different ways.
`<script src=".service-worker.js"></script>`



Adapt from: Microsoft Learn (<https://learn.microsoft.com/en-us/microsoft-edge/progressive-web-apps-chromium/how-to/>)



While off-line: Get data from cache.



Adapt from: Microsoft Learn (<https://learn.microsoft.com/en-us/microsoft-edge/progressive-web-apps-chromium/how-to/>)

Manifest Properties

1. **name**: is the name used in the app install prompt.
2. **short_name**: is the name used on the user's home screen, launcher, or other places where space may be limited.
3. **start_url**: tells the browser where your application should start when it is launched.
4. **display**: it allows us to customize what browser UI is shown when your app is launched. The most used value is standalone: it opens the web app to look and feel like a standalone native app.
5. **background_color**: is used on the splash screen when the application is launched.
6. **theme_color**: it sets the color of the toolbar.
7. **orientation**: it allows to enforce a specific orientation.
8. **scope**: it defines the set of URLs that the browser considers being within your app and often it's used to decide when the user has left the app.
9. **icons**: when a user adds your site to their home screen, you can define a set of images for the browser to use.

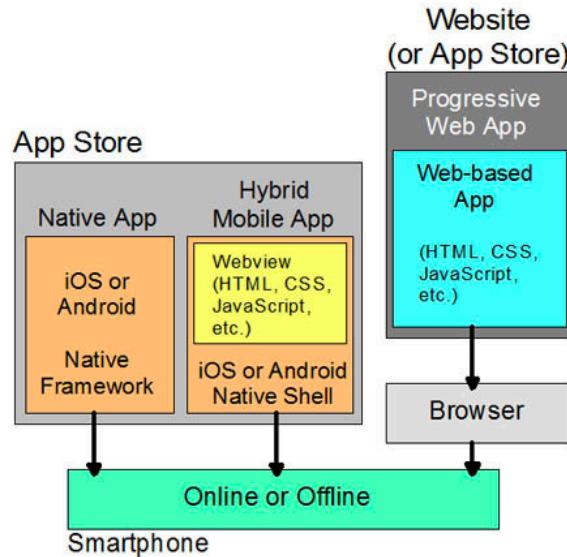
The Service Worker

It's essentially a JavaScript file that runs separately from the main browser thread, with a Service Worker you can:

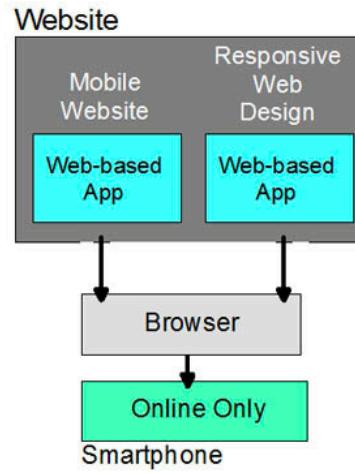
- intercepting network requests.
- caching or retrieving resources from the cache.
- delivering push messages.

Service worker lifecycle

- **Registration**: tells the browser where your service worker is located, and to start installing it in the background.
- **Installation**: triggers an install event where we can run some tasks when the service worker installs.
- **Activation**: if there are any open pages controlled by the previous service worker, the new service worker enters a waiting state. The new service worker only activates when there are no longer any pages loaded that are still using the old service worker and can be used to run some tasks too.

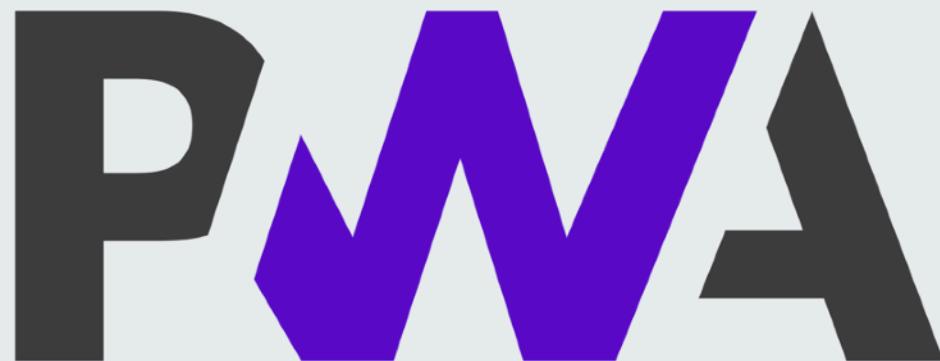


Source: PC Magazine (<https://www.pcmag.com/encyclopedia/term/progressive-web-app>)



Flask Progressive Web App (PWA)

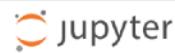
The next stage for Responsive Web App!



PWA

A large, bold, sans-serif font displays the acronym "PWA". The letters are primarily dark gray, except for the central vertical stroke of the letter "W" which is purple. The "P" and "A" are also dark gray.

```
1 from flask import Flask, jsonify, render_template
2
3 app = Flask(__name__)
4
5
6 @app.route('/')
7 def home():
8     return render_template('index.html')
9
10 @app.route('/service-worker.js')
11 def sw():
12     return app.send_static_file('service-worker.js')
13
14
15 if __name__ == '__main__':
16     app.run('localhost', 9191)
17
* Serving Flask app "__main__" (lazy loading)
* Environment: production
WARNING: This is a development server. Do not use it in a production deployment.
Use a production WSGI server instead.
* Debug mode: off
```

[Quit](#)[Logout](#)[Files](#) [Running](#) [Clusters](#)

Select items to perform actions on them.

[Upload](#) [New](#)

<input type="checkbox"/>	0		0	/ jupyter_notebooks / Classes / com5940 / 2023 / Lesson04 / PWA-Flask-Python-Template /	static		Name	Last Modified	File size
			..					seconds ago	
<input type="checkbox"/>		images						36 minutes ago	
<input type="checkbox"/>		app.js						an hour ago	350 B
<input type="checkbox"/>		manifest.json						3 years ago	990 B
<input type="checkbox"/>		service-worker.js						an hour ago	1.13 kB
<input type="checkbox"/>		styles.css						11 minutes ago	240 B

[Quit](#)[Logout](#)[Files](#) [Running](#) [Clusters](#)

Select items to perform actions on them.

[Upload](#) [New](#)

<input type="checkbox"/>	0		0	/ jupyter_notebooks / Classes / com5940 / 2023 / Lesson04 / PWA-Flask-Python-Template /	templates		Name	Last Modified	File size
			..					seconds ago	
<input type="checkbox"/>		base.html						an hour ago	2.51 kB
<input type="checkbox"/>		index.html						5 hours ago	60 B

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0, viewport-fit=cover, user-scalable=no"/>
6   <meta name="apple-mobile-web-app-capable" content="yes" />
7   <meta name="apple-mobile-web-app-status-bar" content="#000000" />
8   <meta name="theme-color" content="#34A5DA">
9   <link rel="icon" sizes="192x192" href="{{ url_for('static', filename='images/android-launchericon-192-192.png') }}">
10  <link rel="manifest" href="{{ url_for('static', filename='manifest.json') }}" />
11  <title>Flask PWA</title>
12  <meta name="description" content="A demo flask progressive web app">
13  <link rel="stylesheet" href="{{ url_for('static', filename='styles.css') }}"/>
14
15
16  <!-- Bootstrap Links -->
17  <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/css/bootstrap.min.css" integrity="sha384-9IIt2Rp1cD8Sl5O0i4o5QbJfR5uGFJFVd5Ew1c0xaC0C8Y5KqFGjZGNGFRgJUdJW" crossorigin="anonymous">
18    <!-- JS, Popper.js, and jQuery -->
19    <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js" integrity="sha384-9E9RHvBiy2MjbHaEWldlvI9IOy5n3zV9zzTtmI3UkqdQRVvoxMfooAo" crossorigin="anonymous"></script>
20    <script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js" integrity="sha384-Q6E9RHvbIyZJdJO7jNTAWOiaypHgzc7vWJfGhP0trv4uXK+lyZoP2nT+wI8EE0V2" crossorigin="anonymous"></script>
21    <script src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/js/bootstrap.min.js" integrity="sha384-OgVRvuATPlz7JjHLkuOU7Xw704+h835Lr+6QL9UVYjZE3Ipu6Tp75j7Bh/kR0JKI" crossorigin="anonymous"></script>
22
23  <!-- Jquery -->
24  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.8.3/jquery.min.js"></script>
25 </head>
26 <body>
27
28   <header>
29
30     <nav class="navbar navbar-dark bg-secondary">
31       <li><a style="color: white" href="{{ url_for('home') }}>Home</a></li>
32     </nav>
33
34     <div class="jumbotron">
35       <h1>Flask Progressive Web App (PWA)</h1>
36       <p>The next stage for Responsive Web App!</p>
37       <div class="pwa">
38         
39       </div>
40     </div>
41
42   </header>
43
44   <main>
45     <div class="container">
46       {% block body %}
47       {% endblock %}
48     </div>
49   </main>
50
51   <script src="{{ url_for('static', filename='app.js') }}></script>
52
53 </body>
54 </html>

```

base.html

Jupyter app.js · an hour ago

```
File Edit View Language  
1 // Register Service Worker  
2  
3 if ("serviceWorker" in navigator) {  
4   window.addEventListener("load", () => {  
5     navigator.serviceWorker  
6       .register("/service-worker.js") // .register("./sw_cache_pages.js")  
7       .then((reg) => console.log("Service Worker: Registered"))  
8       .catch((err) => console.log(`Service Worker: Error: ${err}`));  
9   });  
10 }  
11  
12
```

app.js

Registering service-worker.js file.

```
1 const cacheName = 'flask-PWA-v4';
2
3 // Call install event
4 self.addEventListener("install", (e) => {
5   console.log("Service worker: installed.");
6 });
7
8 // Call activate event
9 self.addEventListener("activate", (e) => {
10   console.log("Service worker: Activated.");
11   // Remove unwanted caches
12   e.waitUntil(
13     caches.keys().then((cacheNames) => {
14       return Promise.all(
15         cacheNames.map((cache) => {
16           if (cache !== cacheName) {
17             console.log("Service Worker: Clearing Old Cache");
18             return caches.delete(cache);
19           }
20         })
21       );
22     })
23   );
24 });
25
26 // Call Fetch Event to show website when off-line
27 self.addEventListener("fetch", (e) => {
28   console.log("Service Worker: Fetching");
29   e.respondWith(
30     fetch(e.request)
31       .then((res) => {
32         // Make copy/clone of response
33         const resClone = res.clone();
34         // Open cache
35         caches.open(cacheName).then((cache) => {
36           // Add response to cache
37           cache.put(e.request, resClone);
38         });
39         return res;
40       })
41       .catch((err) => caches.match(e.request).then((res) => res))
42     );
43 });
44
```

Service worker installed locally.

**Service worker activated with
cache renewed.**

service-worker.js

Fetching from cache when off-line.

```
1  {
2      "name": "Demo Flask Progressive Web App (PWA)",
3      "short_name": "Flask PWA",
4      "theme_color": "#34A5DA",
5      "background_color": "#FFFFFF",
6      "icons": [
7          {
8              "src": "/static/images/android-launchericon-48-48.png",
9              "type": "image/png",
10             "sizes": "48x48"
11         },
12         {
13             "src": "/static/images/android-launchericon-96-96.png",
14             "type": "image/png",
15             "sizes": "96x96"
16         },
17         {
18             "src": "/static/images/android-launchericon-144-144.png",
19             "type": "image/png",
20             "sizes": "144x144"
21         },
22         {
23             "src": "/static/images/android-launchericon-192-192.png",
24             "type": "image/png",
25             "sizes": "192x192"
26         },
27         {
28             "src": "/static/images/android-launchericon-512-512.png",
29             "type": "image/png",
30             "sizes": "512x512"
31         }
32     ],
33     "start_url": "/",
34     "display": "standalone",
35     "orientation": "portrait"
36 }
```

manifest.json

Contain meta information about starting up the PWA and location of icons for generating startup icon for mobile.

Generating manifest.json icons.

**Upload
your icon.**

The screenshot shows a web-based application for generating PWA icons. At the top left is a blue house icon. To its right, the text "PWA APP ICON GENERATOR" is displayed in bold black font, with "Generate progressive web app icons" in a smaller gray font below it. Below this header is a central area with two main sections. On the left, a red-bordered box contains a white "Upload 512x512 png file" input field and a blue "Upload PNG File" button. On the right, a green "Download PWA Icons Bundle" button is positioned above a green "Download" button. Below these buttons is a section titled "manifest.webmanifest" containing a JSON configuration file:

```
{  
  "name": "<Application Name>",  
  "short_name": "<Application Short Name >",  
  "theme_color": "#1976d2",  
  "background_color": "#fafafa",  
  "display": "standalone",  
  "scope": "./",  
  "start_url": "./",  
  "icons": [  
    {  
      "src": "assets/icons/icon-48x48.png",  
      "sizes": "48x48",  
      "type": "image/png",  
      "purpose": "maskable any"  
    },  
    {  
      "src": "assets/icons/icon-72x72.png",  
      "sizes": "72x72",  
      "type": "image/png",  
      "purpose": "maskable any"  
    }  
  ]  
}
```

**Download
icon
bundle.**

<https://tools.crawlink.com/tools/pwa-icon-generator/>

FAVICON GENERATOR / GENERATE FROM IMAGE

Quickly generate your favicon from an image by uploading your image below. Download your favicon in the most up to date formats.

**Converter**

Drag and drop your file here or click here to upload.



Download

<https://favicon.io/favicon-converter/>

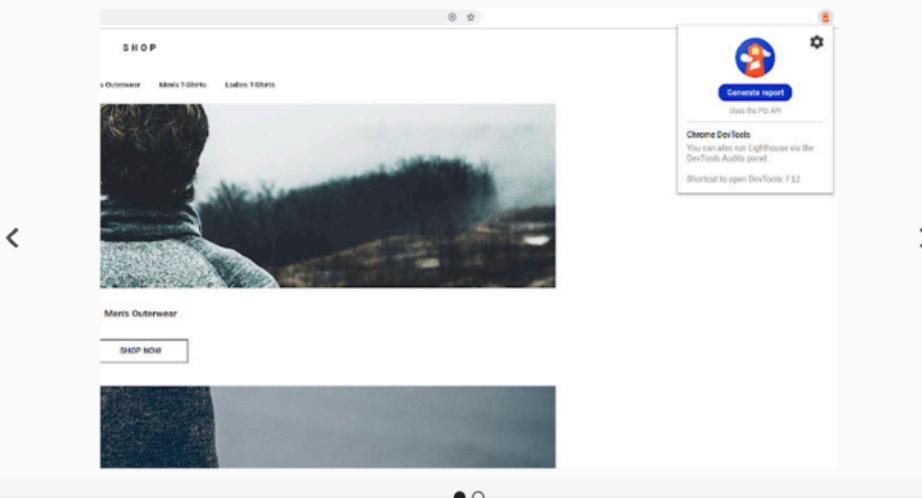
Testing PWA installation.

[Home](#) > [Extensions](#) > [Lighthouse](#)

Lighthouse

 [developers.google.com/web](#)  Featured 288  | [Developer Tools](#) | 900,000+ users[Remove from Chrome](#)

Install Lighthouse Chrome extension

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<https://chrome.google.com/webstore/detail/lighthouse/blipmdconlkpinefehnmjammfjpmpbjk?hl=en-GB>

• Home

Flask Progressive Web App (PWA)

The next stage for Responsive Web App!



Screenshot of the Chrome DevTools Application tab showing the status of a Progressive Web App (PWA).

The Application tab is selected (highlighted with a red box). The left sidebar shows:

- Application**:
 - Manifest** (selected, highlighted with a blue box)
 - Service Workers
 - Storage
- Storage**:
 - Local Storage (localhost:91)
 - Session Storage
 - IndexedDB
 - Web SQL
 - Cookies

The main area displays the PWA's icon assets:

- Primary icon as used by Chrome: A large 'PWA' logo.
- 48x48px: A smaller version of the 'PWA' logo.
- image/png
- 96x96px: Another smaller version of the 'PWA' logo.
- image/png

**Click Application tab
to check Manifest and
Service Workers
status.**

Flask Progressive Web App (PWA)

The next stage for Responsive Web App!



Elements Console Sources Performance insights Network Performance Memory Application > 1 ⚙ X

Application Network requests Update Unregister

Manifest Service Workers Storage

Storage Local Storage Session Storage IndexedDB Web SQL Cookies

http://localhost:9191/

Source [service-worker.js](#)
Received 05/02/2023, 23:14:04

Status ● #5156 activated and is running [stop](#)

Clients http://localhost:9191/ [focus](#)

Push Test push message from DevTools. [Push](#)

Sync test-tag-from-devtools [Sync](#)

Periodic Sync test-tag-from-devtools [Periodic Sync](#)

Click Application tab to check Manifest and Service Workers status.

Flask Progressive Web App (PWA)

The next stage for Responsive Web App!



Elements Console Sources Performance insights Network Performance Memory Application >> 1

Application [Network](#) [Security](#) [Lighthouse](#) [Recorder](#) [Update](#) [Unregister](#)

Manifest Service Workers Storage

Storage

Local Storage Session Storage IndexedDB Web SQL Cookies

http://localhost:9191/

Source [service-worker.js](#)

Received 05/02/2023, 23:14:04

Status ● #5156 activated and is running [stop](#)

Clients [http://localhost:9191/](#) [focus](#)

Push [Push](#)

Sync [Sync](#)

Periodic Sync [Periodic Sync](#)

Run Lighthouse.

Flask Progressive Web App (PWA)

The next stage for Responsive Web App!



Elements Console Sources Performance insights Network Performance Memory Lighthouse (1) | :

+ (new report) Legacy navigation Clear storage Simulated throttling (default) [Learn more](#)



Generate a Lighthouse report

Click the blue button to start.

Analyze page load

Mode [Learn more](#)

- Navigation (Default)
- Timespan
- Snapshot

Device

- Mobile
- Desktop

Categories

- Performance
- Accessibility
- Best practices

Dimensions: Moto G4 ▾

360

x 640

100% ▾

Mobile ▾ No throttling ▾



Auditing localhost...

Lighthouse is gathering information about the page to compute your score.

[Cancel](#)



Generate a Lighth

Mode [Learn more](#)

Navigation (Default)

Timespan

Snapshot

Device

Mobile

Desktop

Categories

Performance

Accessibility

Best practices

[Analyze page load](#)

• Home

Flask Progressive Web App (PWA)

The next stage for Responsive Web App!



Elements Console Sources Performance insights Network Performance Memory Lighthouse > x 1 1 ⚙️ ⋮

+ | 23:29:49 - localhost:9191 ▾ ✖

Legacy navigation Clear storage Simulated throttling (default) ▾ [Learn more](#)

⚠️ <http://localhost:9191/> ⋮



• Home

Flask Progressive Web App (PWA)

The next stage for Responsive Web App!



Elements Console Sources Performance insights Network Performance Memory Lighthouse > x 1 1 ⚙️ ⋮ ✖️

+ | 23:29:49 - localhost:9191 ▾ ✖️

Legacy navigation Clear storage Simulated throttling (default) ▾ [Learn more](#)

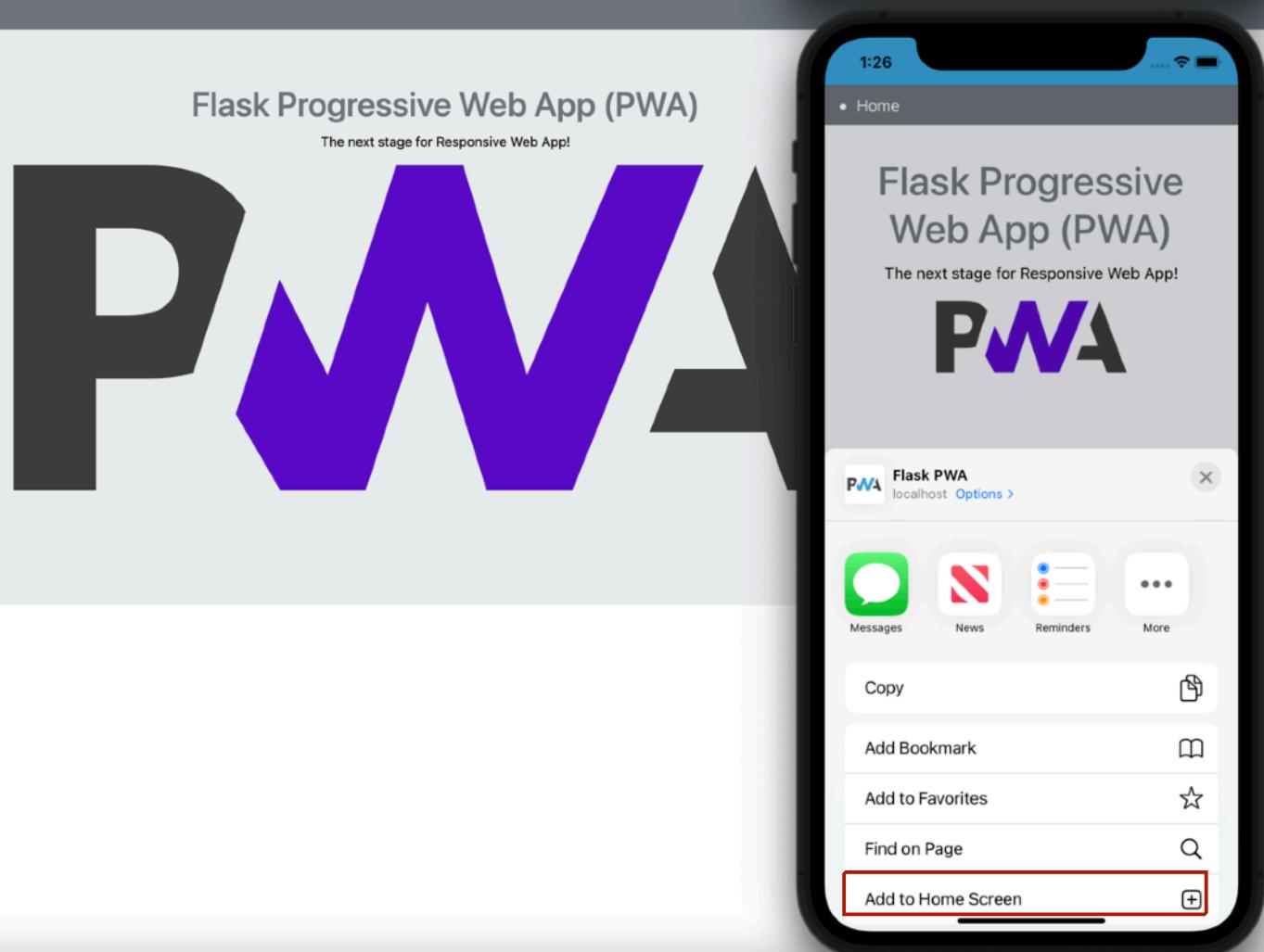
⚠️ <http://localhost:9191/> ⋮



These checks validate the aspects of a Progressive Web App. [Learn more](#).

+ **INSTALLABLE**

Web app manifest and service worker meet the installability requirements





Home About Sample Signup Login Profile Logout

Zay eCommerce

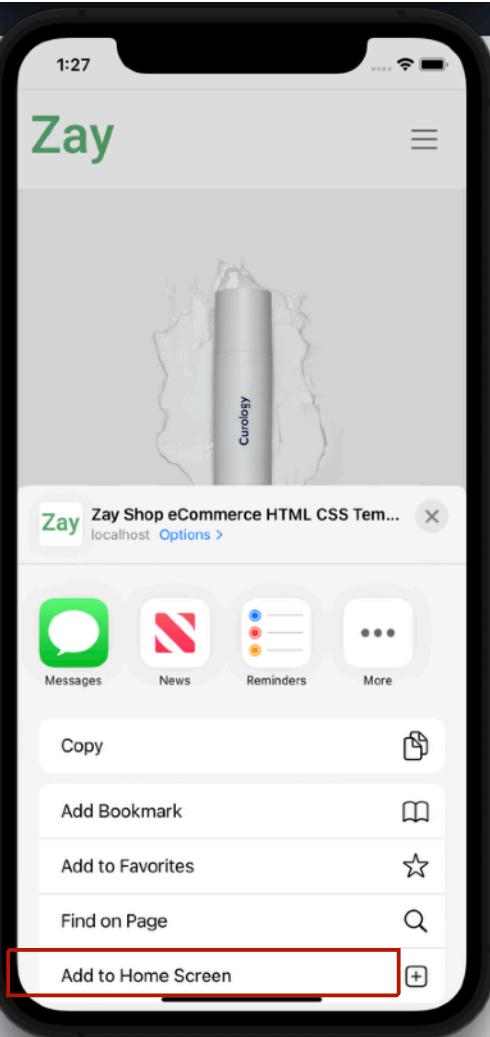
Tiny and Perfect eCommerce Template

Zay Shop is an eCommerce HTML5 CSS template with latest version of Bootstrap 5 (beta 1). This template is 100% free provided by [TemplateMo](#) website. Image credits go to [Freepik Stories](#), [Unsplash](#) and [Icons 8](#).



Categories of The Month

Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt
mollit anim id est laborum.



Repr in voluptate

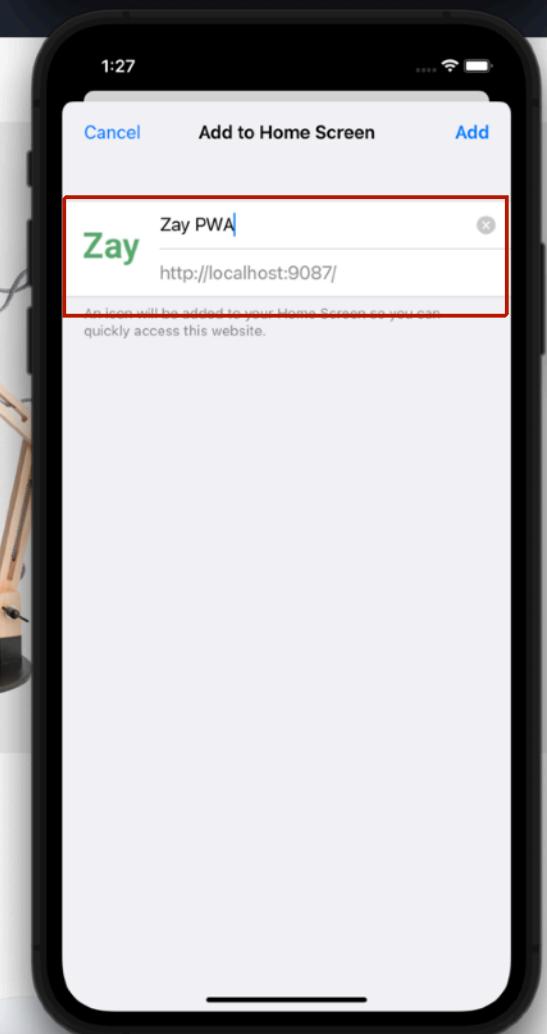
Ullamco laboris nisi ut

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Proident occaecat

Aliquip ex ea commodo consequat

You are permitted to use this Zay CSS template for your commercial

Elements Console Sources Performance insights Network Performance **Application** »

✖ X Filter by Path

#	Name	Response-...	Content-Type	Content-Le...	Time Cached	Vary Header
8	/static/assets/css/bootstrap.min.css	basic	text/css; ch...	153,111	06/02/2023...	
9	/static/assets/css/custom.css	basic	text/css; ch...	463	06/02/2023...	
10	/static/assets/css/templatem.css	basic	text/css; ch...	5,656	06/02/2023...	
11	/static/assets/icons/icon-144x144.png	basic	image/png	5,828	06/02/2023...	
12	/static/assets/img/about-hero.svg	basic	image/svg+...	46,285	06/02/2023...	
13	/static/assets/img/banner_img_01.jpg	basic	image/jpeg	70,824	06/02/2023...	
14	/static/assets/img/banner_img_02.jpg	basic	image/jpeg	43,659	06/02/2023...	
15	/static/assets/img/banner_img_03.jpg	basic	image/jpeg	84,063	06/02/2023...	
16	/static/assets/img/brand_01.png	basic	image/png	48,175	06/02/2023...	

Total entries: 42

- Web SQL
- Cookies
 - http://localhost:90
- Trust Tokens
- Interest Groups

- Cache
 - Cache Storage
 - Jay-PWA-v3 - http://localhost:90
 - Back/forward cache

- Background Services

info@company.com 010-020-0340

Zay

Home About Sample Signup Login Profile Logout

Zay eCommerce

Tiny and Perfect eCommerce Template

Zay Shop is an eCommerce HTML5 CSS template with latest version of Bootstrap 5 (beta 1). This template is 100% free provided by [TemplateMo](#) website. Image credits go to [Freepik Stories](#), [Unsplash](#) and [Icons 8](#).

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Repr in voluptate

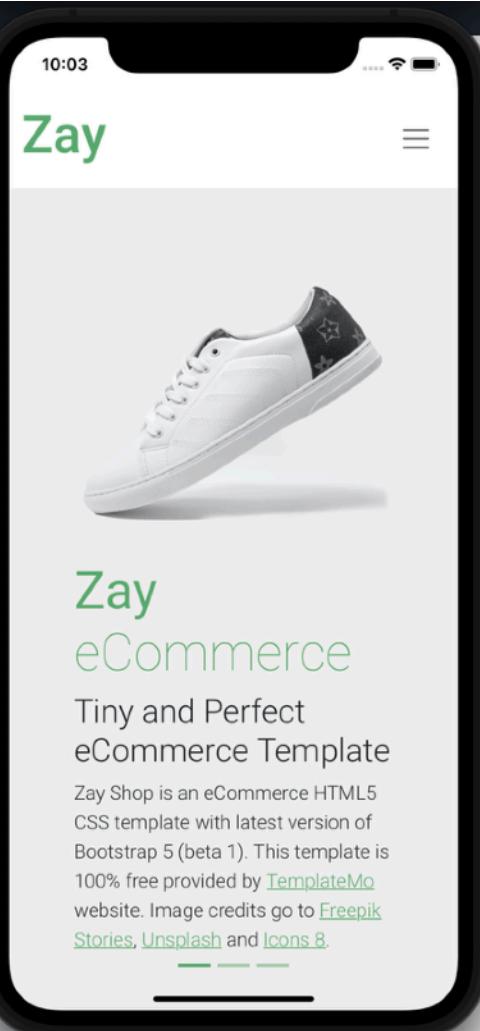
Ullamco laboris nisi ut

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Accessing Mobile Phone Hardware Capabilities through PWA.

WEB WEDNESDAY

How do I access device resources with a
Progressive Web App?
with Nitya Narasimhan



Christopher Harrison
@geektrainer



Nitya Narasimhan
@nitya

<https://learn.microsoft.com/en-us/shows/web-wednesday/how-do-i-access-local-resources-from-a-progressive-web-app>

04:42

Distribution of PWA with **QR** Code



QR Planet

formerly
qrdb°by

Solutions

Pricing

Login

Create free account



QR Code Generator ❤

Free generated QR codes

Dynamic QR Codes

design with logo

do not expire

trackable

free analytics

Link

Text

V-card

QR PDF

more

Link

<https://supint.pythonanywhere.com/>



Design Templates

Your Logo

Your Colors

Custom Frames

Advanced Design

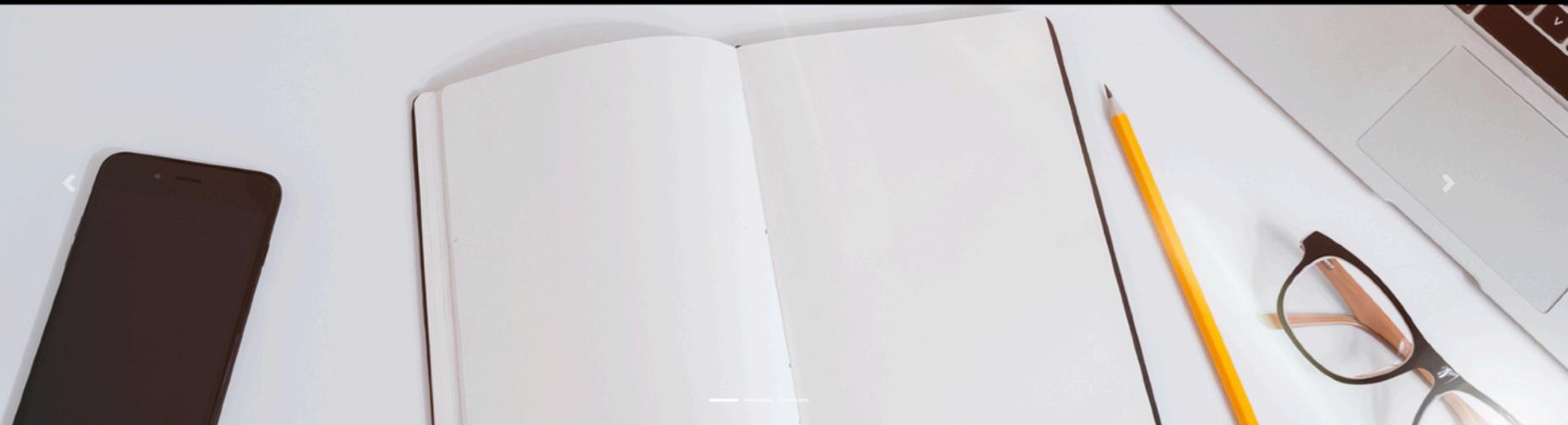
CMYK Colors

Scan Analytics

Download static QR Code

Create your dynamic QR Code

<https://qrplanet.com/>

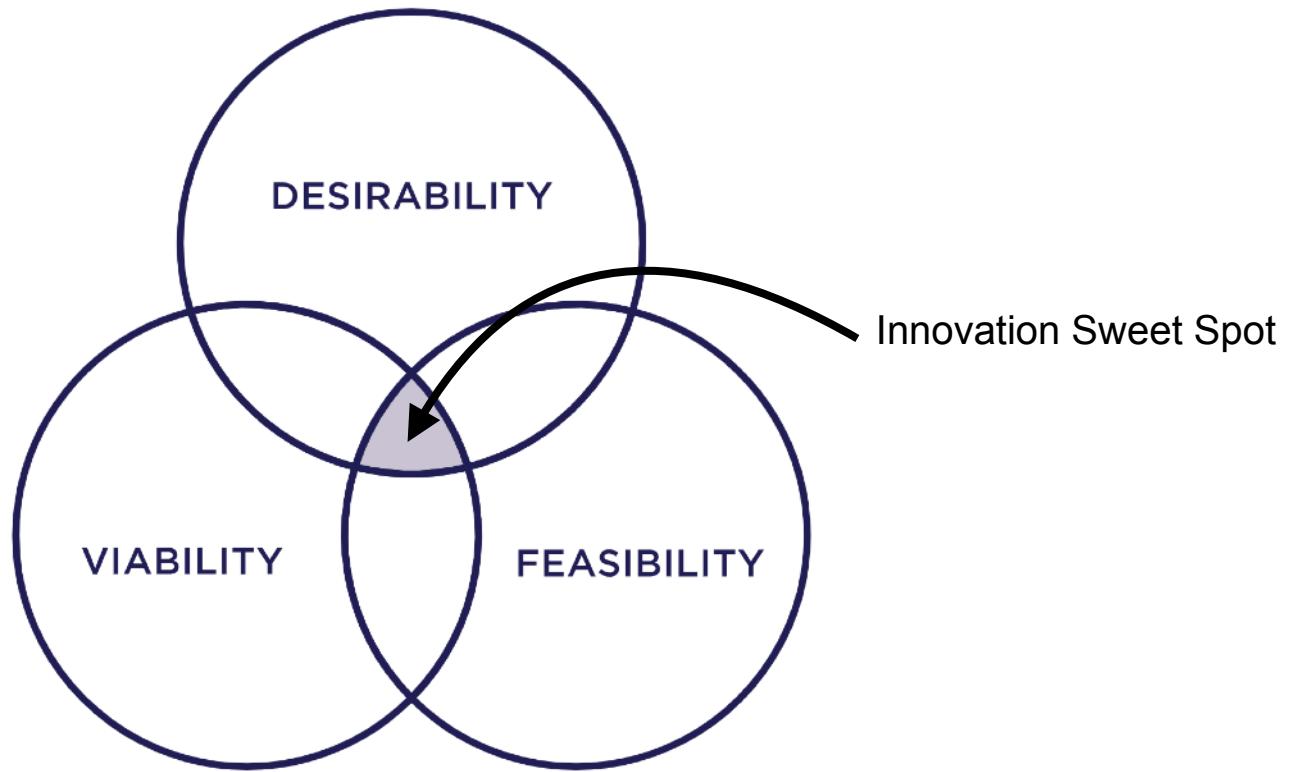


Scan QR code for adding to home screen.

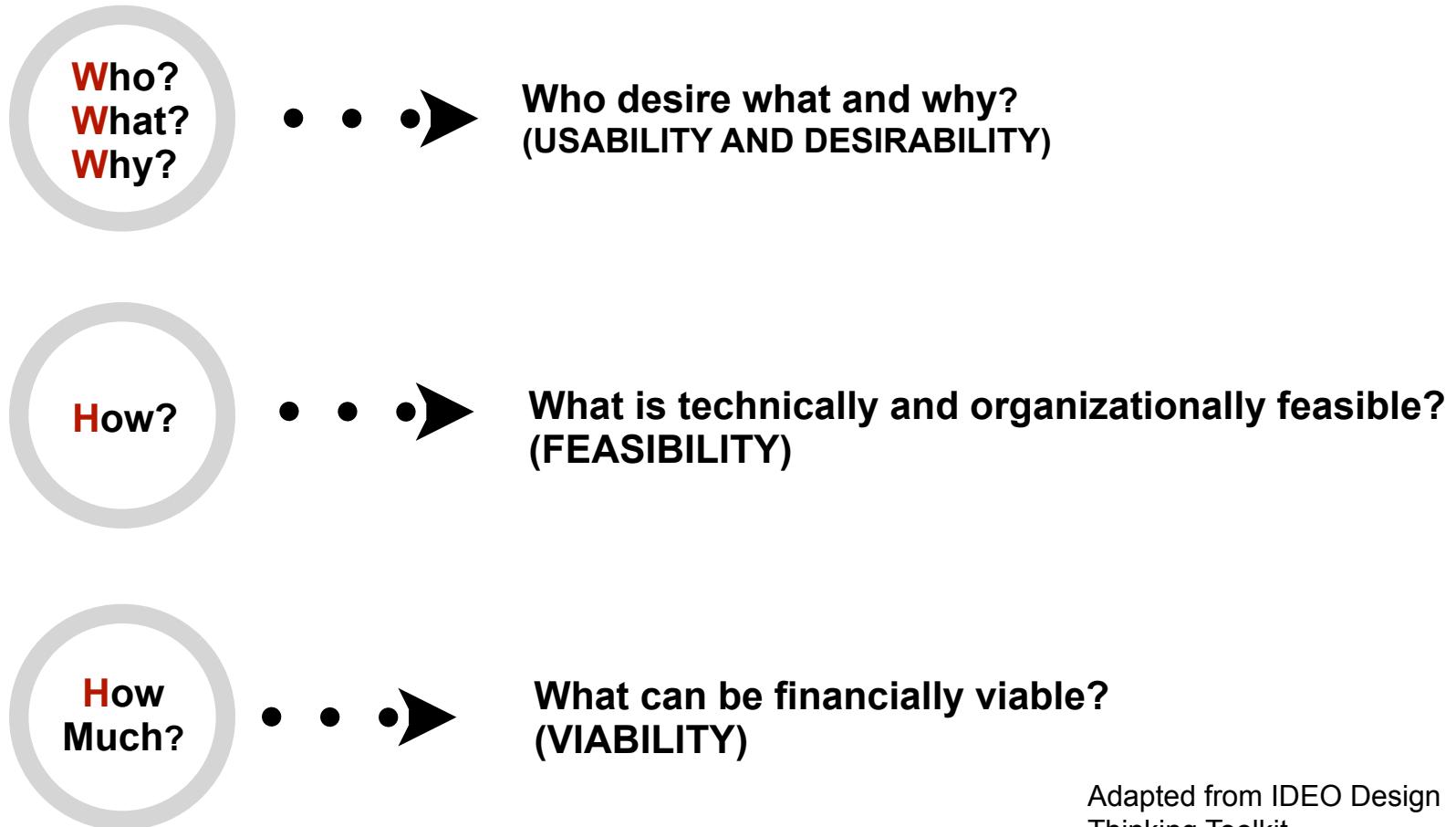


<https://supint.pythonanywhere.com/>

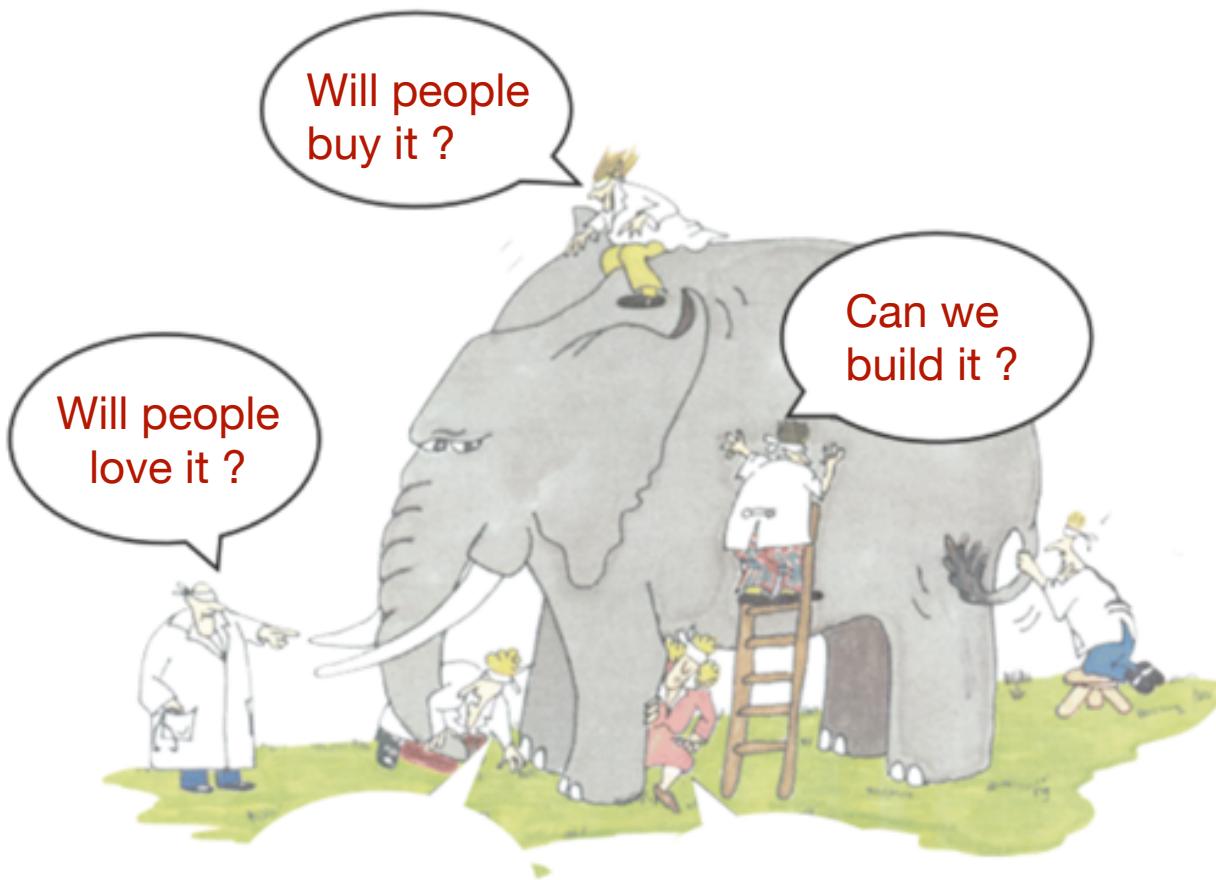
The **IDEO** 3 Pillars of Innovation

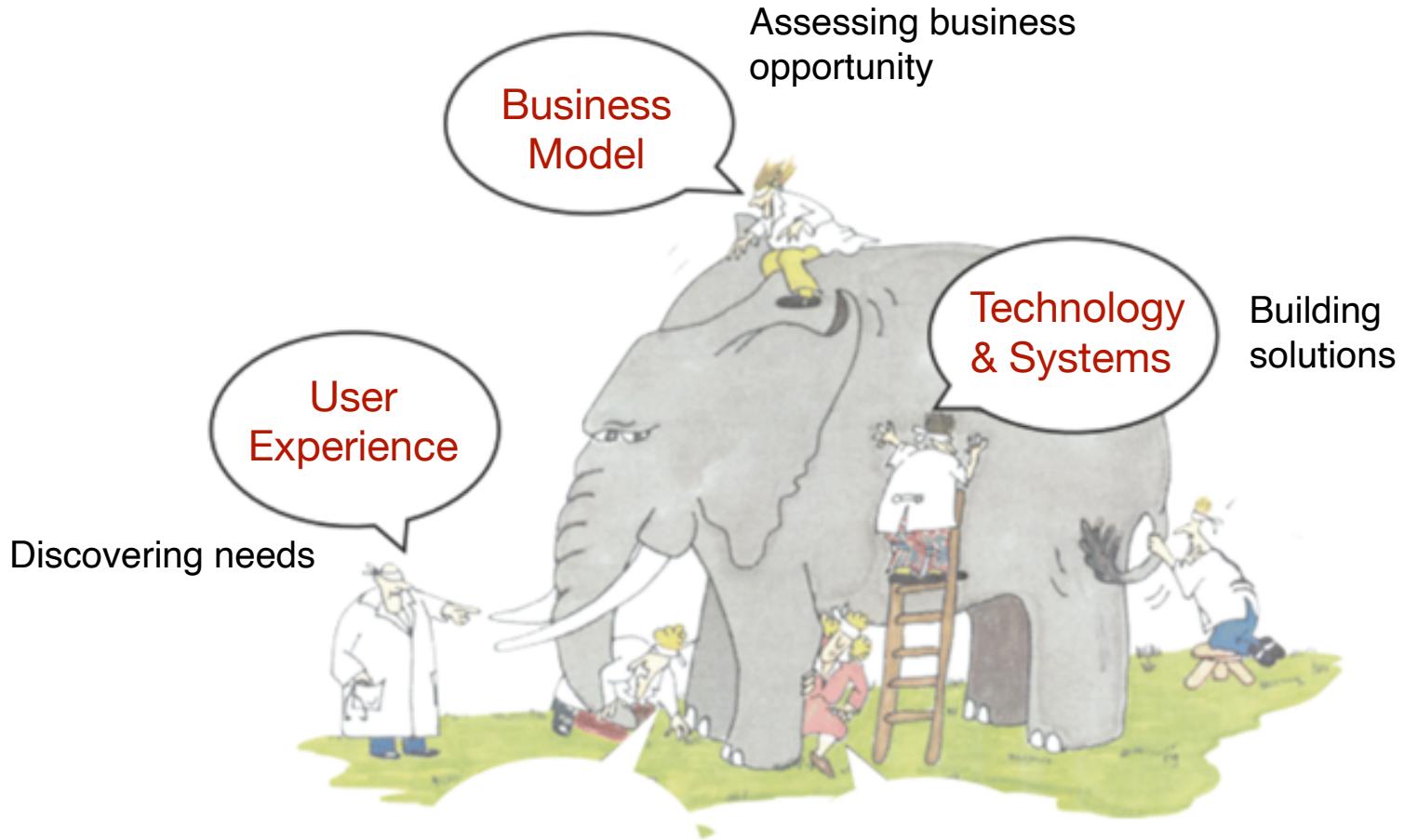


Source: IDEO (<https://designtinking.ideo.com/>)



Adapted from IDEO Design Thinking Toolkit

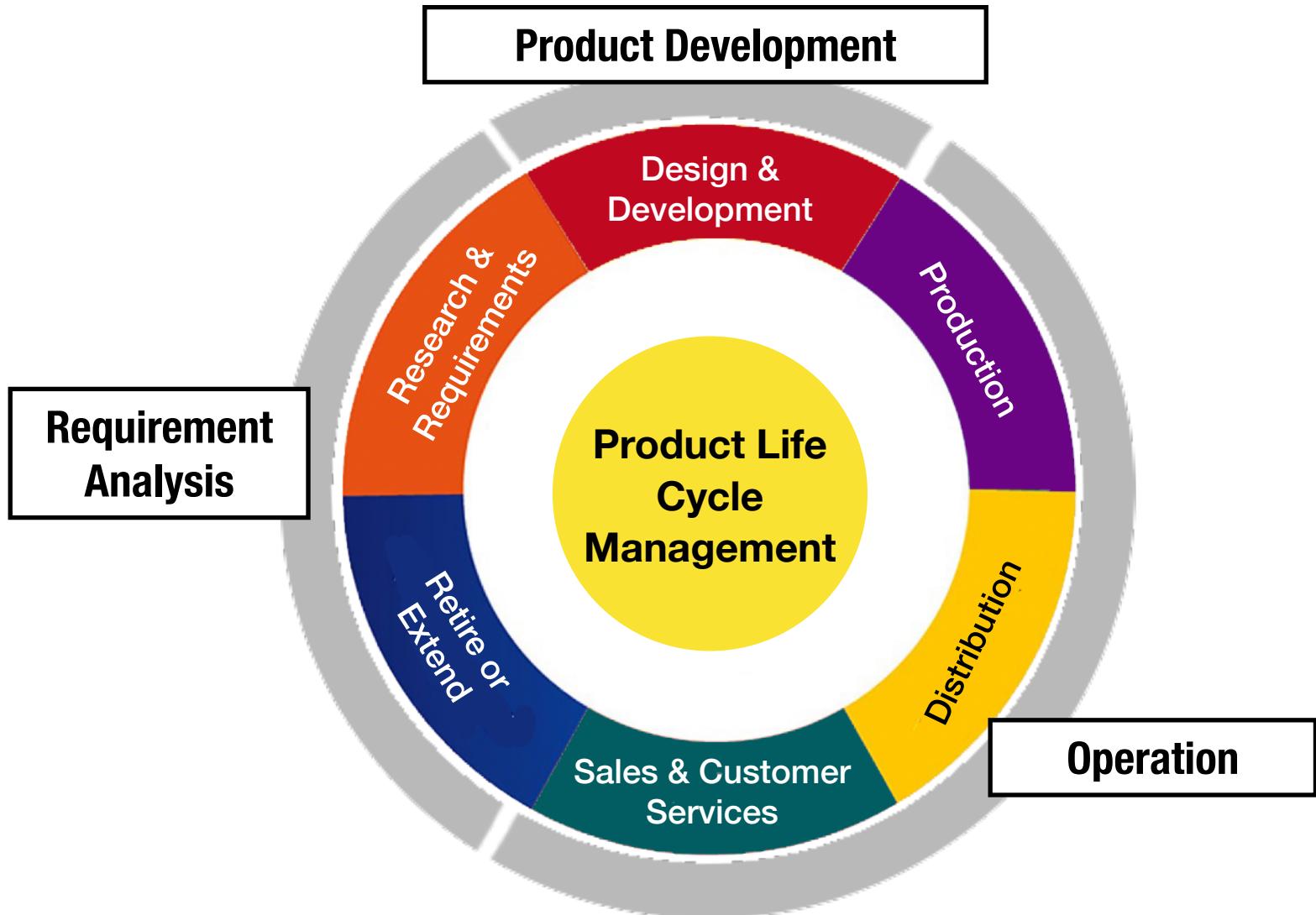




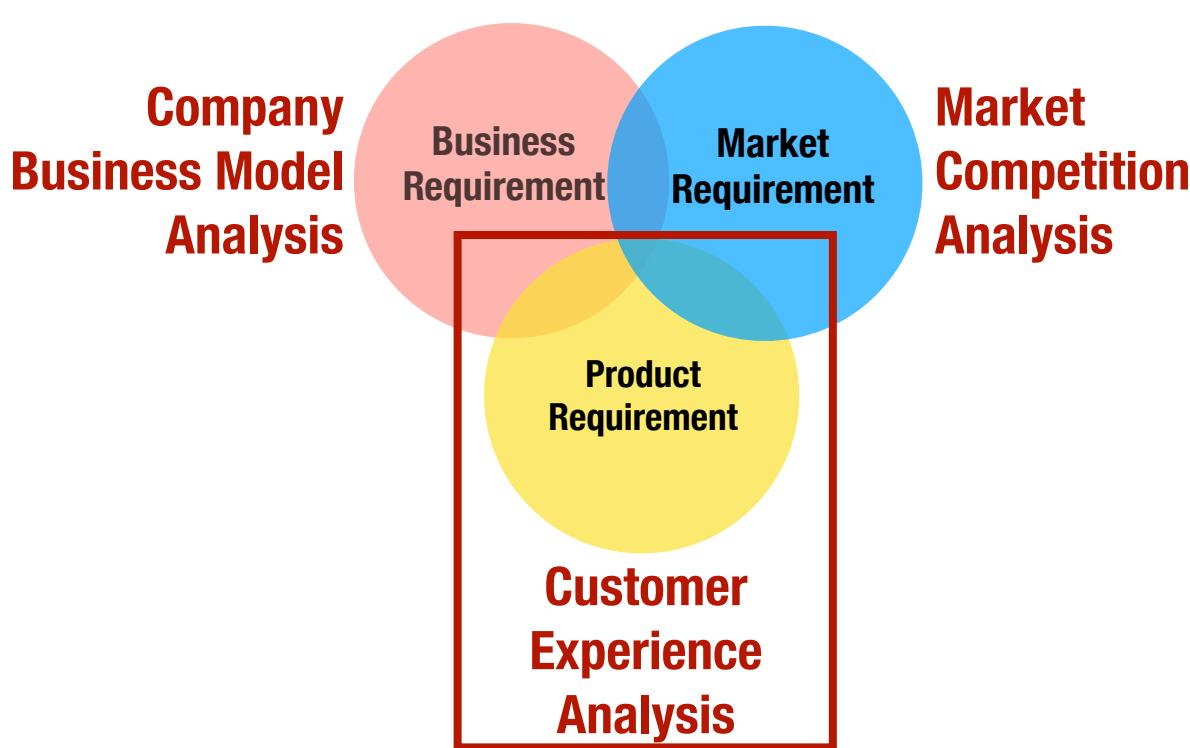
Essential Roles of a Product Manager



Product Life Cycle Management



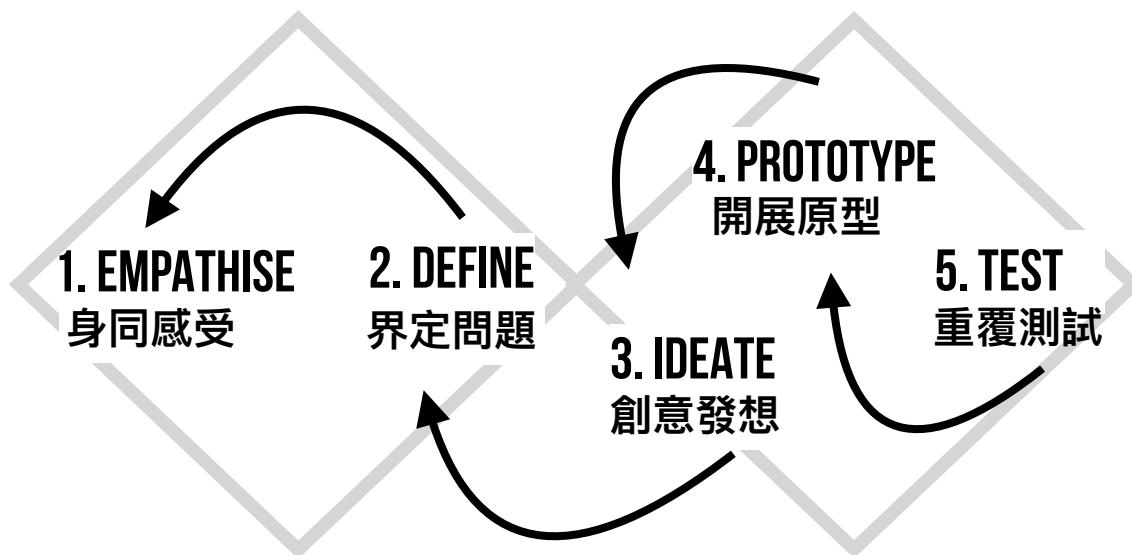
Requirement Analysis



**From UX journey to
business model.**

Design Thinking

(Double Diamond Model)



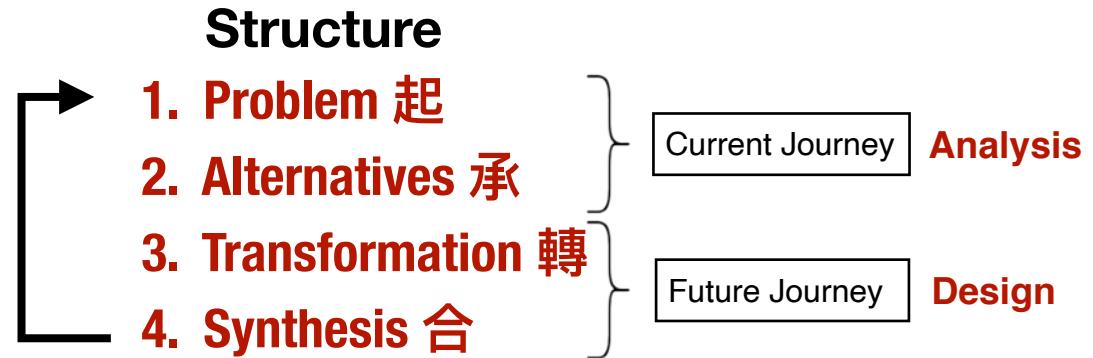


EXPERIENCE OF USING

EXPERIENCE = JOURNEY = STORY

The Journey as the Story

- Elements**
- 1. Persona 人
 - 2. Context 景
 - 3. Artifacts 物
 - 4. Tasks/Jobs 用





CRISP-DM

Source: [Wikimedia](#)

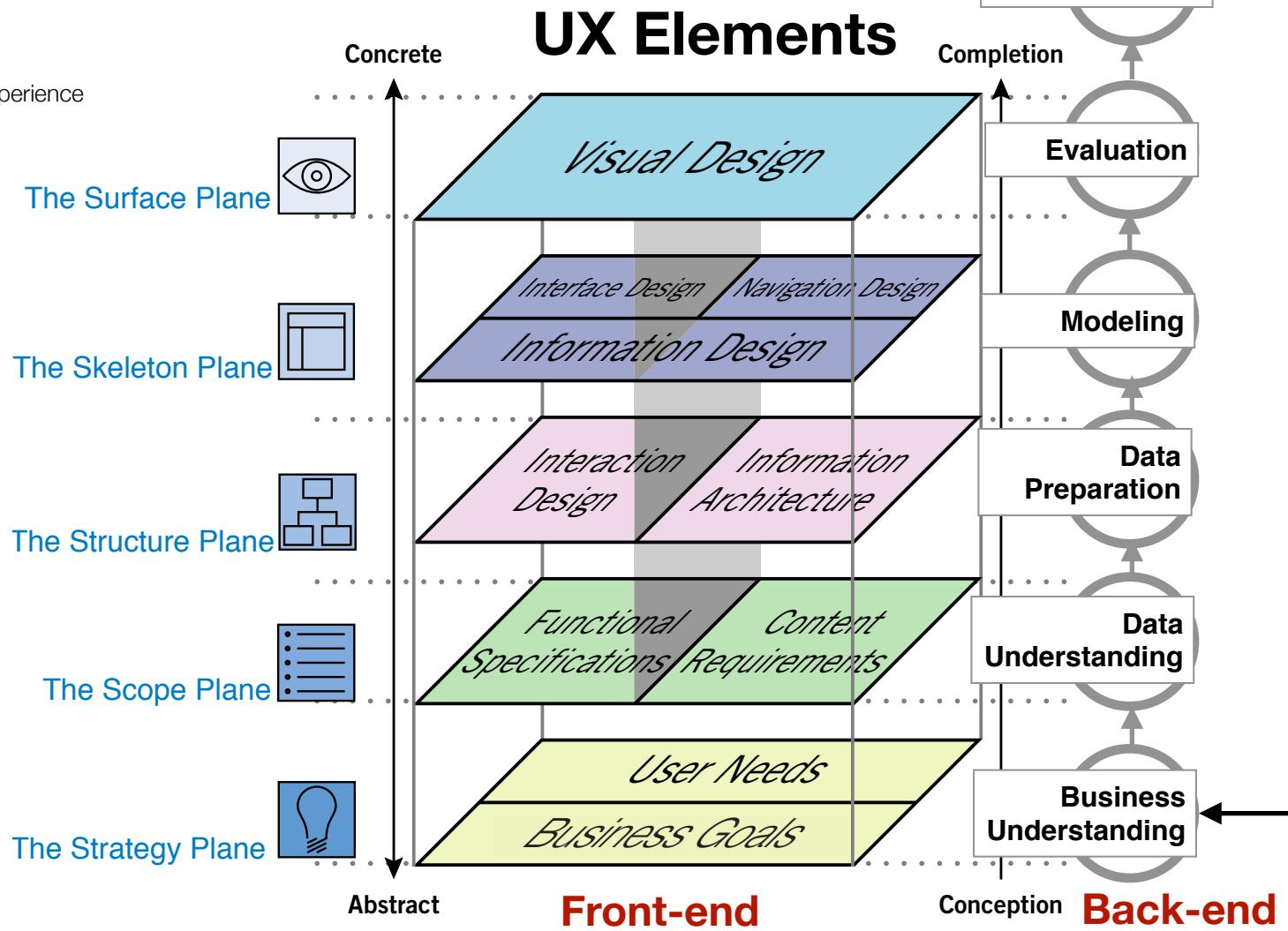
Solution Space

how and
how much

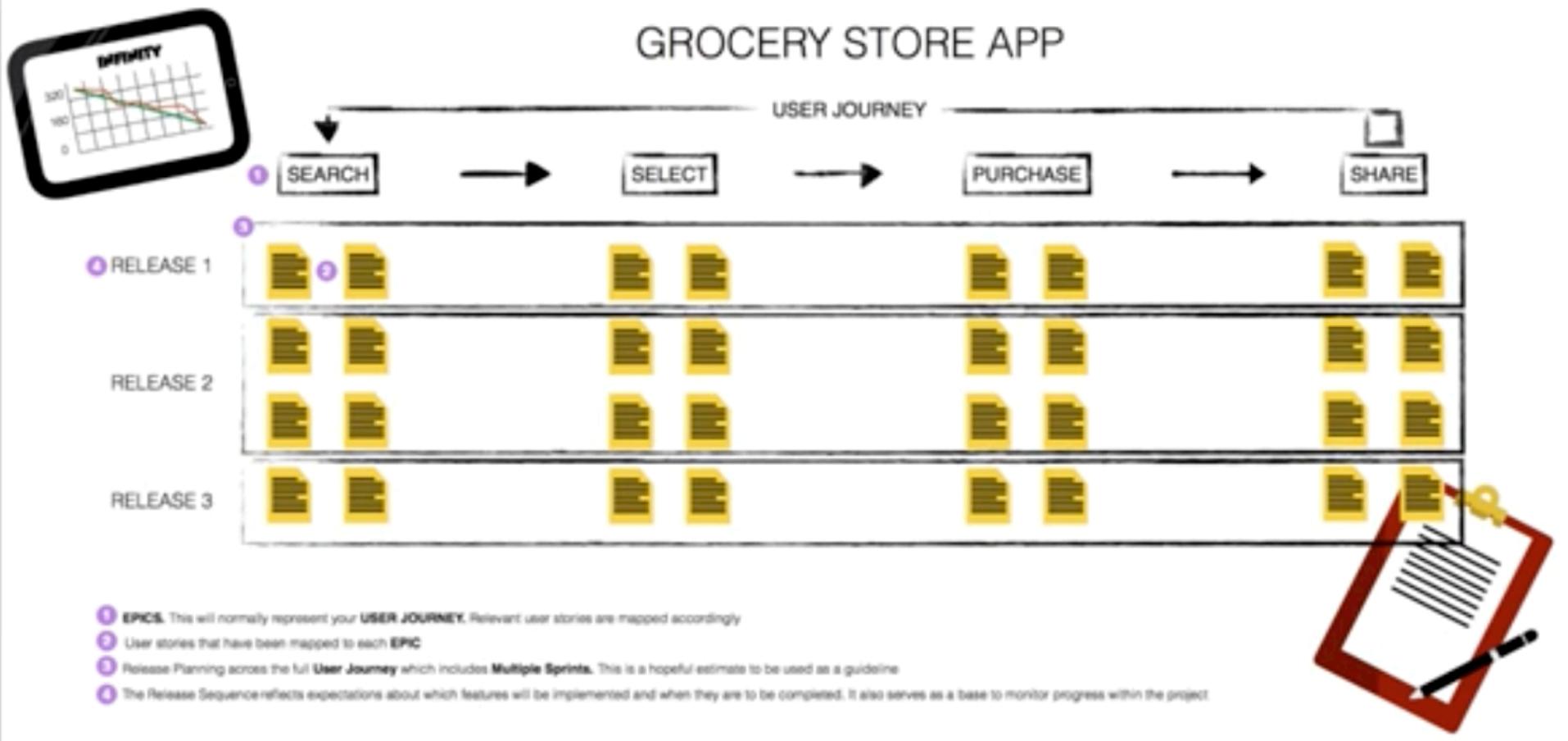
Problem Space

who, what,
and why

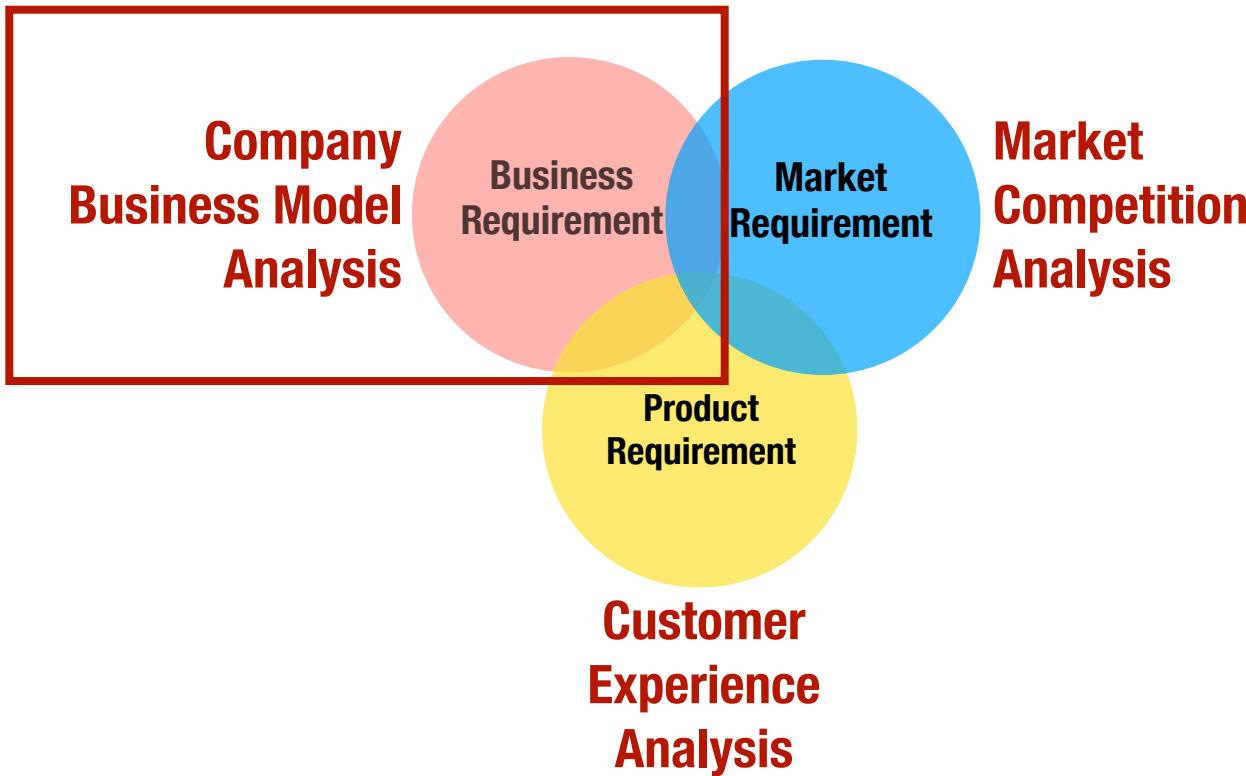
Source: Elements of User Experience
by Jesse James Garrett

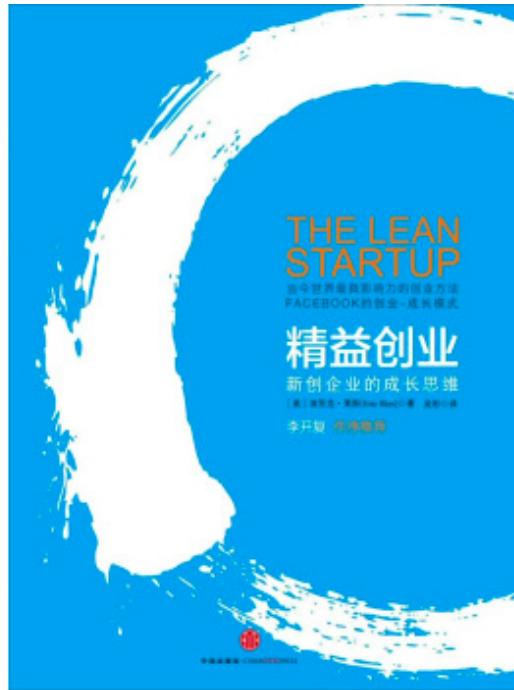
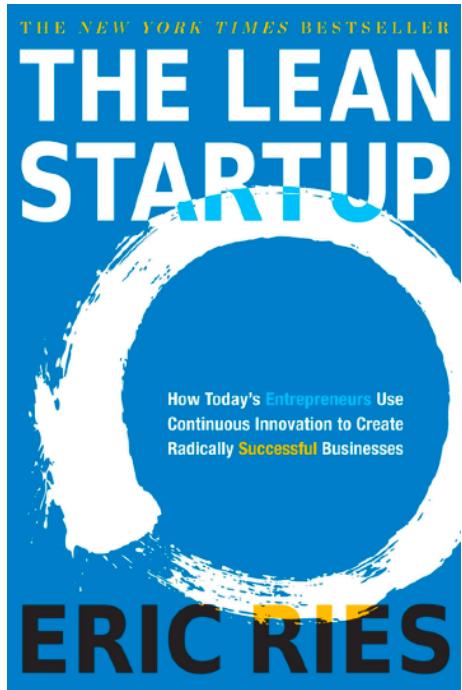


Business Goals

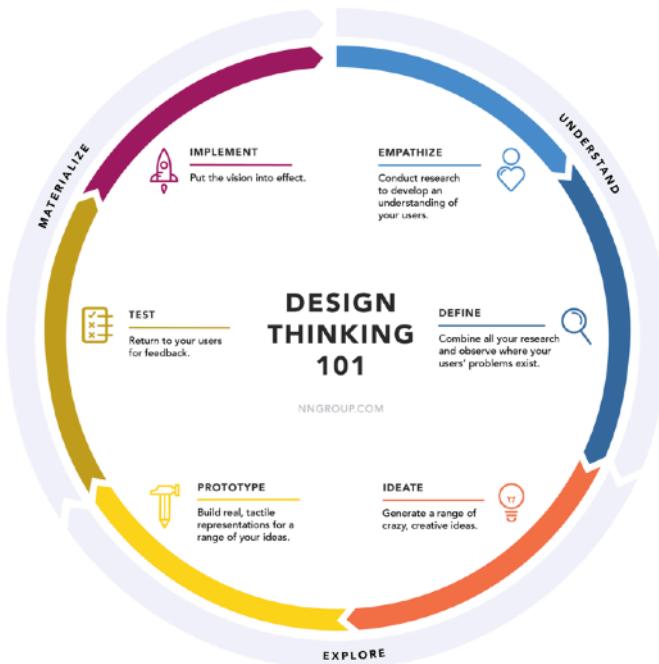


Requirement Analysis

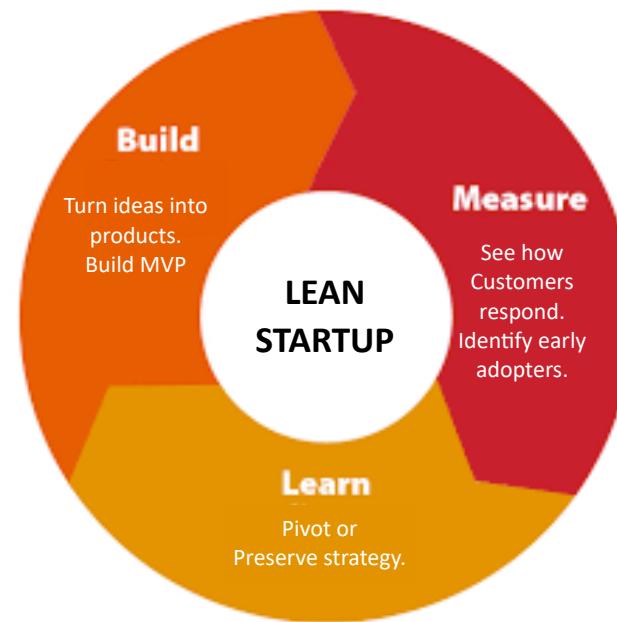




USER EXPERIENCE EVALUATION

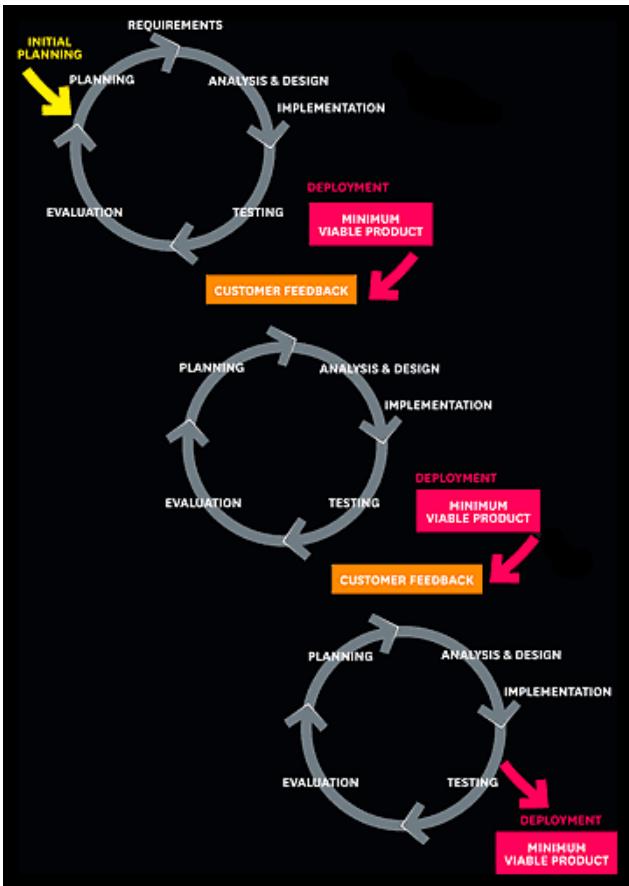


BUSINESS MODEL EVALUATION



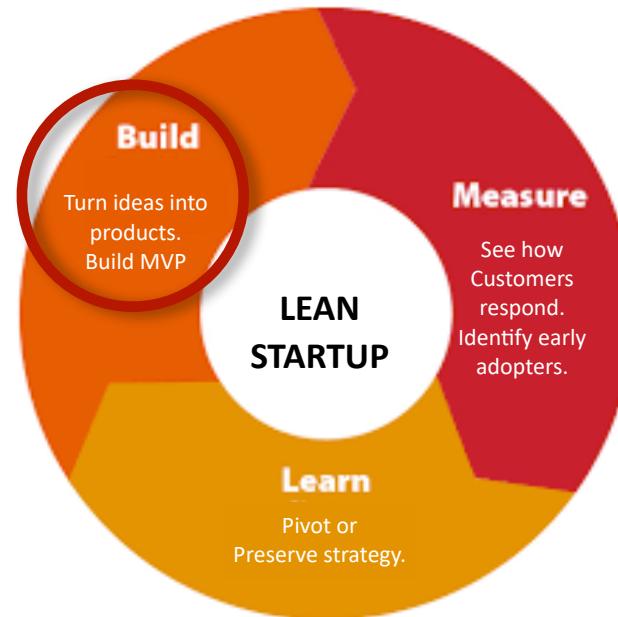
VS.

Can the UX be monetized (变现)?



Source: "Why Lean Start-up Changes Everything"
by Steve Blank

The Lean Startup Approach



Source: Eric Ries

故兵貴勝，不貴久。
孫子兵法《作戰篇》



Lean Business Model

Why the Lean Start-Up Changes Everything

A faster, smarter methodology for launching companies may make business plans obsolete. **by Steve Blank**

From the Magazine (May 2013)



Source: "[Why Lean Start-up Changes Everything](#)" by Steve Blank, Harvard Business Review May 2013



A New Strategy for the 21st-Century Corporation

It's already becoming clear that lean start-up practices are not just for young tech ventures.

Corporations have spent the past 20 years increasing their efficiency by driving down costs. But simply focusing on improving existing business models is not enough anymore. Almost every large company understands that it also needs to deal with ever-increasing external threats by continually innovating. To ensure their survival and growth, corporations need to keep inventing new business models. This challenge requires entirely new organizational structures and skills.

Over the years managerial experts such as Clayton Christensen, Rita McGrath, Vijay Govindarajan, Henry Chesbrough, Ian MacMillan, Alexander Osterwalder, and Eric von Hippel have advanced the thinking

on how large companies can improve their innovation processes. During the past three years, however, we have seen large companies, including General Electric, Qualcomm, and Intuit, begin to implement the lean start-up methodology.

Source: “[Why Lean Start-up Changes Everything](#)” by Steve Blank, Harvard Business Review May 2013

Insights / Information Technology / Article

Why Big Companies Need Lean Startup Techniques



September 28, 2016

Contributor: Kasey Panetta

Traditional companies need to look to startups to compete in the digital world.

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<https://www.gartner.com/en/about/policies/privacy>

Source: <https://www.gartner.com/smarterwithgartner/why-big-companies-need-lean-startup-techniques>

“ By 2021, more than 50% of established corporations will be leveraging lean startup techniques”

Using the FastWorks approach, each project is encouraged to design experiments to test minimum viable products (MVPs) with customers early in the process. The GE team is able to change or “pivot” the project more easily based on what they learn with the customer, as opposed to the traditional way that may mean the project is near completion before it is shared with customer, making changes impossible or far more costly and time-consuming. FastWorks is about early customer discovery and collaboration, early and frequent testing of assumptions to validate or invalidate them, and using those lessons to make adjustments and further test throughout the project.

Gartner estimates by 2021, more than 50% of established corporations will be leveraging lean startup techniques at the business level to increase the pace and success of business transformation.

什么是精益创业？



超智方程

寻找蓝颜知己 共创知识体系 精进思维模型 提高各项技能

3人赞同了该文章

一、精益创业就是用最小的成本和最快的速度试错。

1.上世纪七八十年代崛起的那些科技企业，他们采用的是火箭发射式创业：几个技术大牛凑在一起，研究竞争对手的产品，发现它们的弱点，然后大家封闭起来悄无声息的搞一个产品出来，往市场上一投放就轰动了。其结果往往是未知的，要么极其成功，要么极其失败，风险极大。

2.上世纪的大型汽车公司，使用大型机器批量生产大量零件，一个型号的汽车可能要批量生产几十万辆，等他们发现市场不需要了，再调整也来不及了。后起之秀丰田汽车提出精益生产的概念，使用小机器，一次只造很少的零件，调整更快，成本更低，很快抢占了一些比较小的、比较零散的本土市场。

3.创业也应该坚持精益思路，小步快跑、快速迭代，先用最低的成本，上一个简单的不能再简单的产品，这个产品只有一个最核心的功能，然后看看大家对这个产品的反应，如果反应好，继续投入精力改善产品，然后再看大家的反应，再改善再反馈。如果最初的简陋版产品大家不买单，就果断放弃。

▲ 赞同 3

▼

● 添加评论

↗ 分享

♥ 喜欢

★ 收藏

〔〕申请转载

...

Source: <https://zhuanlan.zhihu.com/p/152237298>

二、精益创业的核心是验证价值假设和增长假设。

1. 规避了隐性假设你才能获得关于用户需求的正确认知。所谓隐性假设，就是我们没有意识到的前提。比如我们聚会时候认识新朋友，都会说“加个微信吧”，这句话里就有个隐性假设，那就是他也用微信。但这个假设不一定对，你必须先验证。
2. 隐形假设包括价值假设和增长假设。价值假设是说，你决定做一个产品或者一个功能，你之所以认准这个方向，是基于背后“它对用户有价值”的假设，你动手做之前一定要先验证这个价值的真伪。
3. 增长假设是你获得了用户认可后，还需要验证产品能不能被更多用户使用，用户会不会帮你传播产品。这个假设很多人会忽略，大家觉得验证过产品的价值后，用户量增不增长只是个运营手法问题，实际上并不是这样，用户能增长也是个基本假设，必须验证。

三、精益思维适用于创业之外的领域。

1. 精益创业思维可以用在电视剧拍摄上。方法是先拍摄一部几十分钟的样片，交代主要的人物关系、矛盾冲突、故事背景，然后邀请几十位观众参加小规模试映会，再根据观众的反馈来决定剧情要作那些修改，是否需要调整演员，以及决定是否投拍。在每一季结束时，制作方再根据收视率和



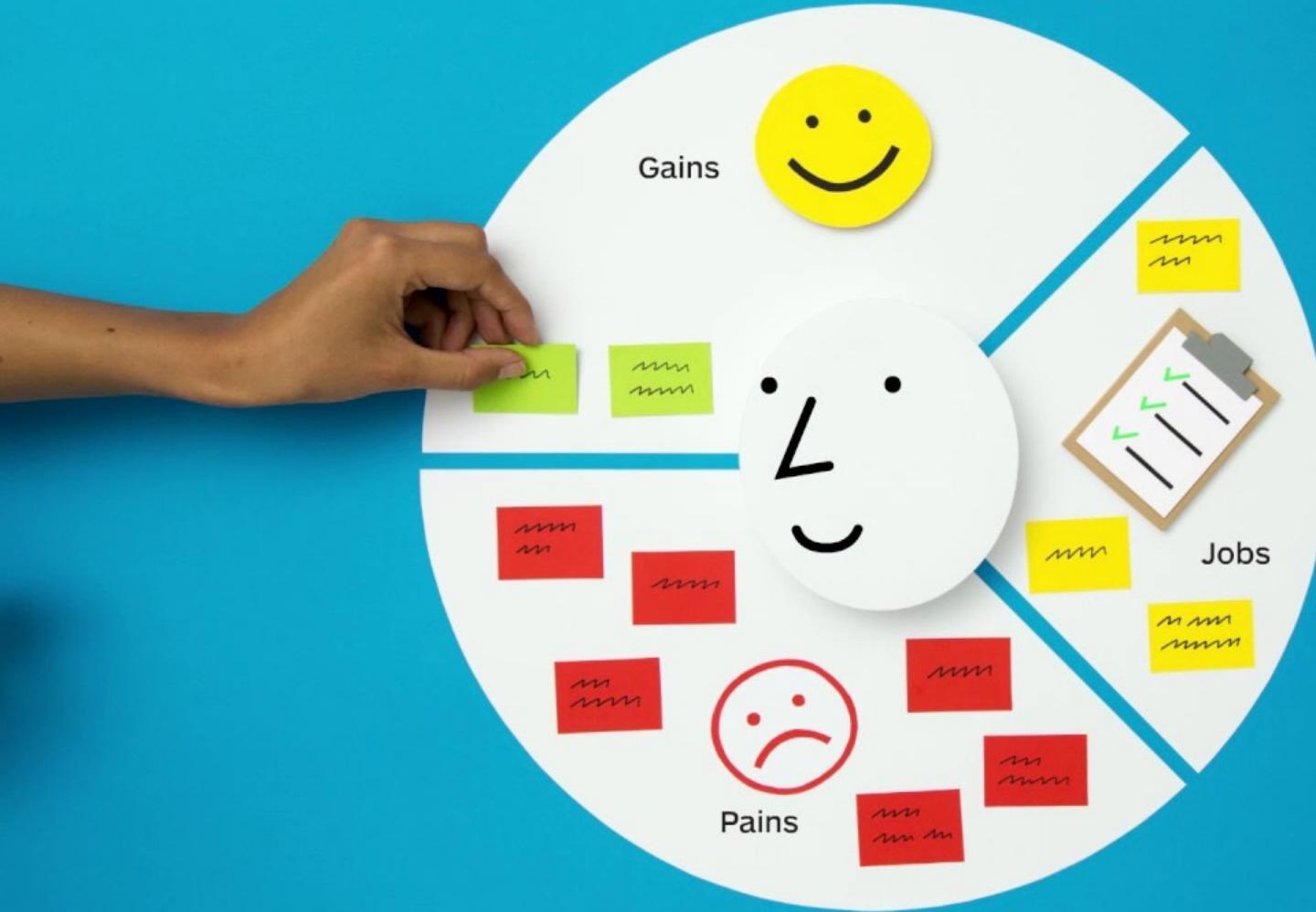
THE LEAN METHOD

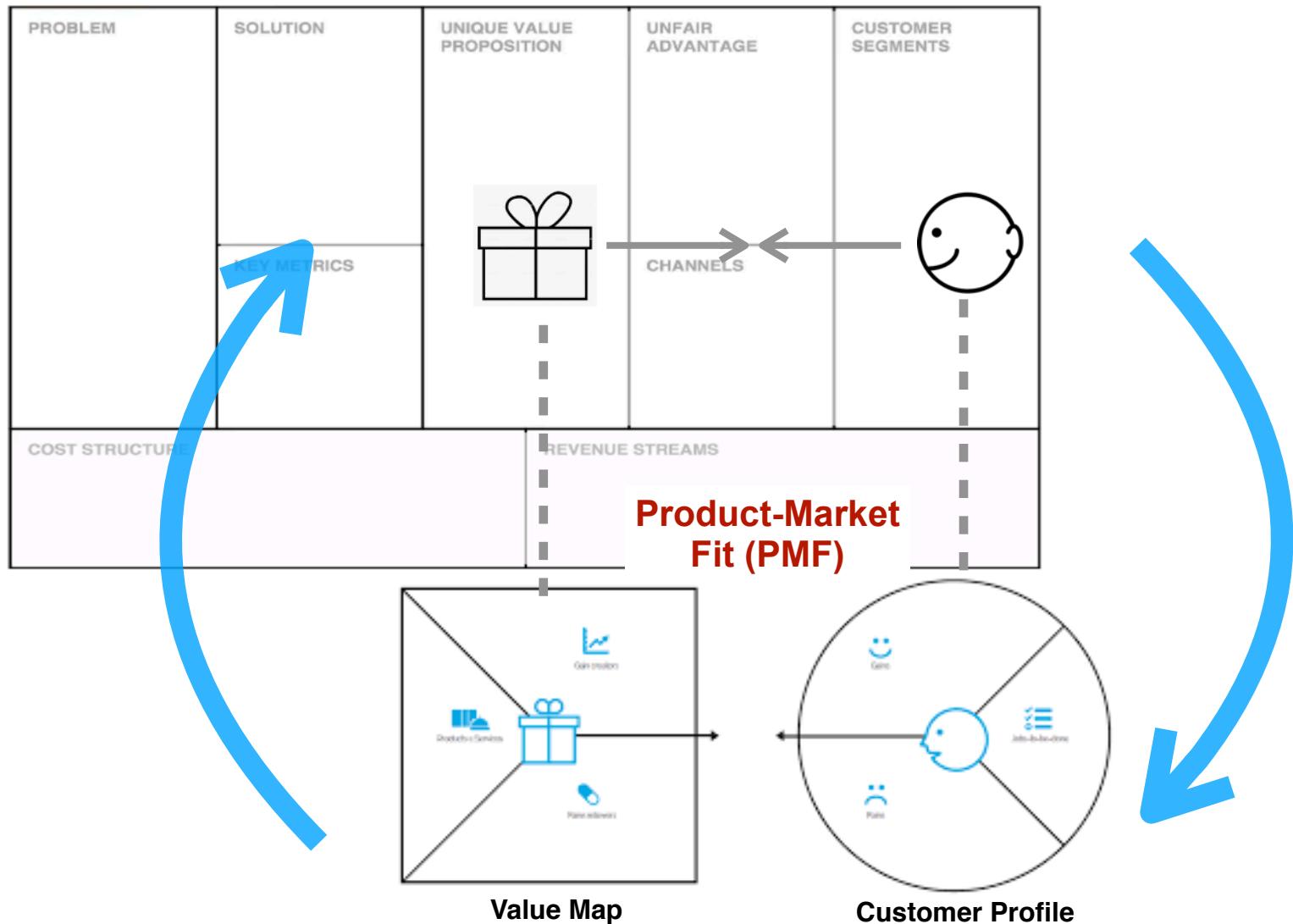
- 1. Business Model Design**
- 2. Customer Development**
- 3. Agile Engineering**

1. Business Model Design

BUSINESS MODEL CANVAS







Product-Market Fit (产品-市场匹配)



眺望

发布时间: 2020-07-04 09:43

关注

"PMF的3个影响因素", 分别是"实际市场规模", "目标客户的支付意愿"和"当前市场的解决方案是否充足".

Source: <https://baijiahao.baidu.com/s?id=1671248771977675&446&wfr=spider&for=pc>

这其中的"PMF"就是"Product-Market Fit". 看了一篇不错的文章PMF：为何硅谷大神把它念奉为创业公司“唯一重要的东西”？，收藏下.

其中提到了“精益创业”（Lean Startup），以后有机会多看看.

“ 导读：定义一个产品的PMF是充满挑战的，因为这需要时间和你对目标市场的深刻洞察！”

“互联网企业99%创业失败，只是因为没有找准它”

听说过“精益创业”（Lean Startup）的人都知道最小化可行性产品（MVP, Minimal Viable Product）的理念——即通过一个最小化、却可以满足核心需求的产品来测试市场的反应。MVP背后的核心原则就是减少时间成本。

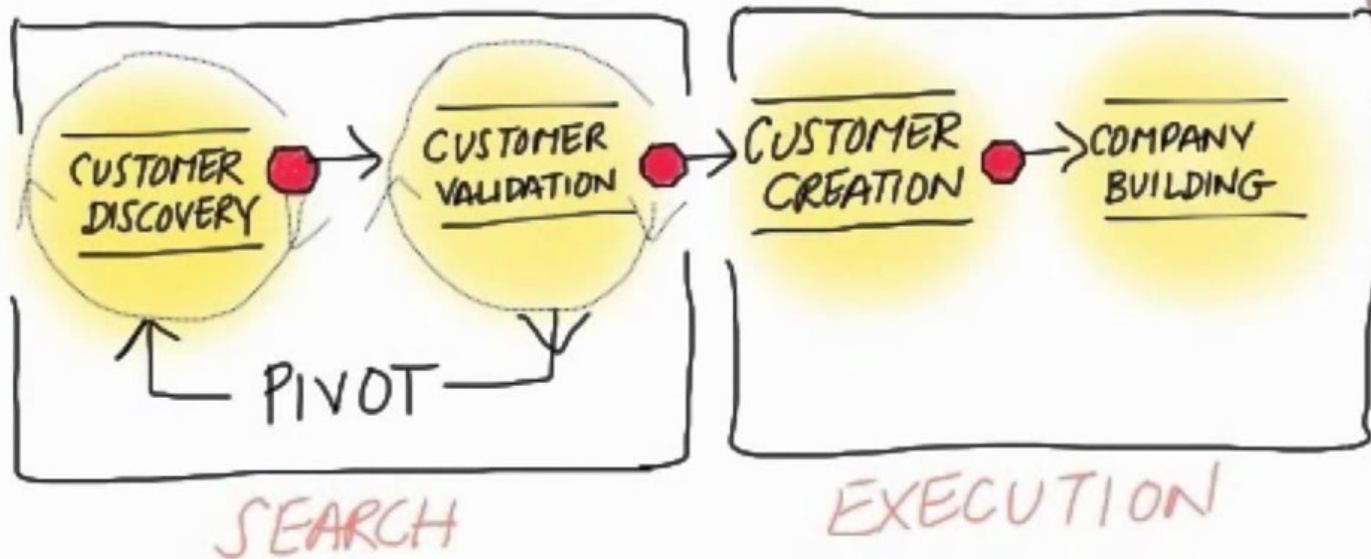
但在互联网行业，很多创业者把精益创业等同于自行开发MVP，然后快速试错。

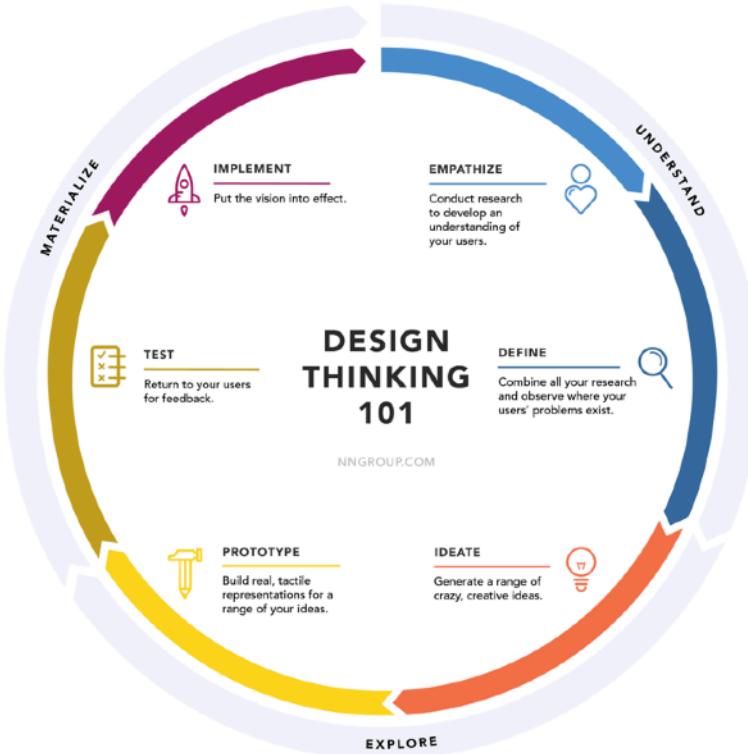
事实是，产品仅仅是将一个创意变成结构化、自动化服务的工具。在你将创意变成自动化服务之前，你应该做的是首先通过人工的方式来确定你的创意是否可行，即寻找Product-Market Fit：产品-市场匹配，同样也是精益创业中最重要的概念之一。

2. Customer Development

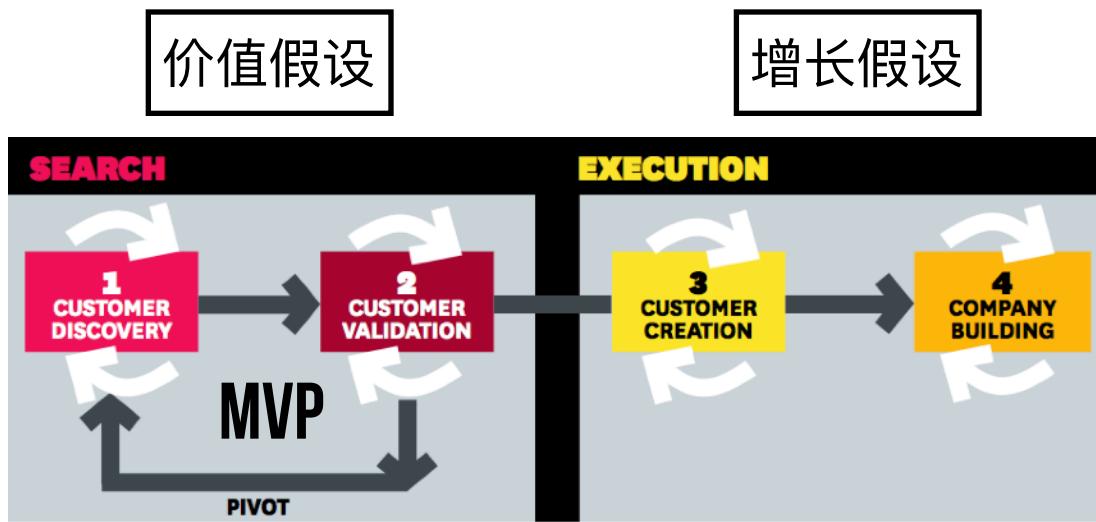
PROCESS

CUSTOMER D.





Source: Sarah Gibbons,
Design Thinking 101
Nielsen Norman Group



Source: “Why Lean Start-up Changes Everything” by Steve Blank, Harvard Business Review May 2013

Source (四步创业法): https://www.sohu.com/a/407494008_120157477

最小化可行产品 MVP(Minimum Viable Product)

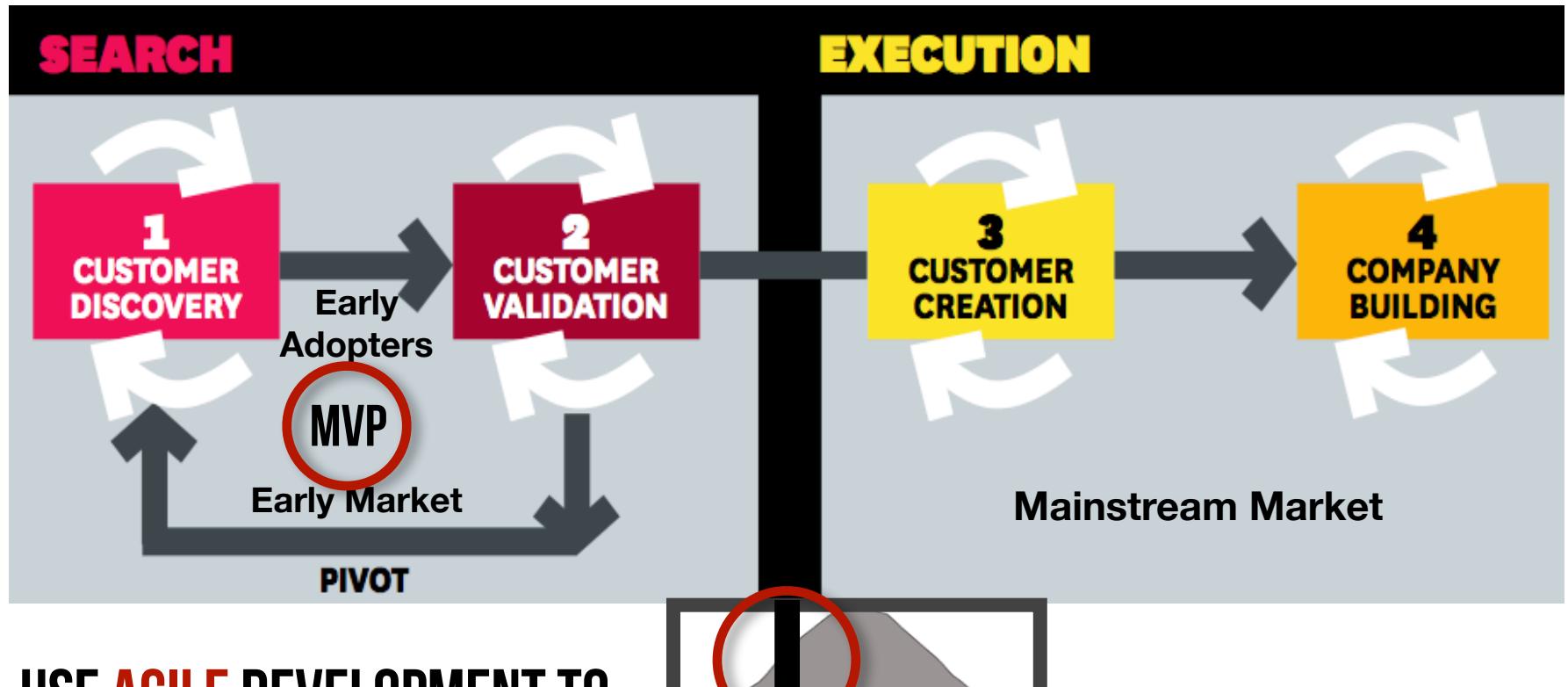


最小化可行架构 MVA (Minimum Viable Architecture)

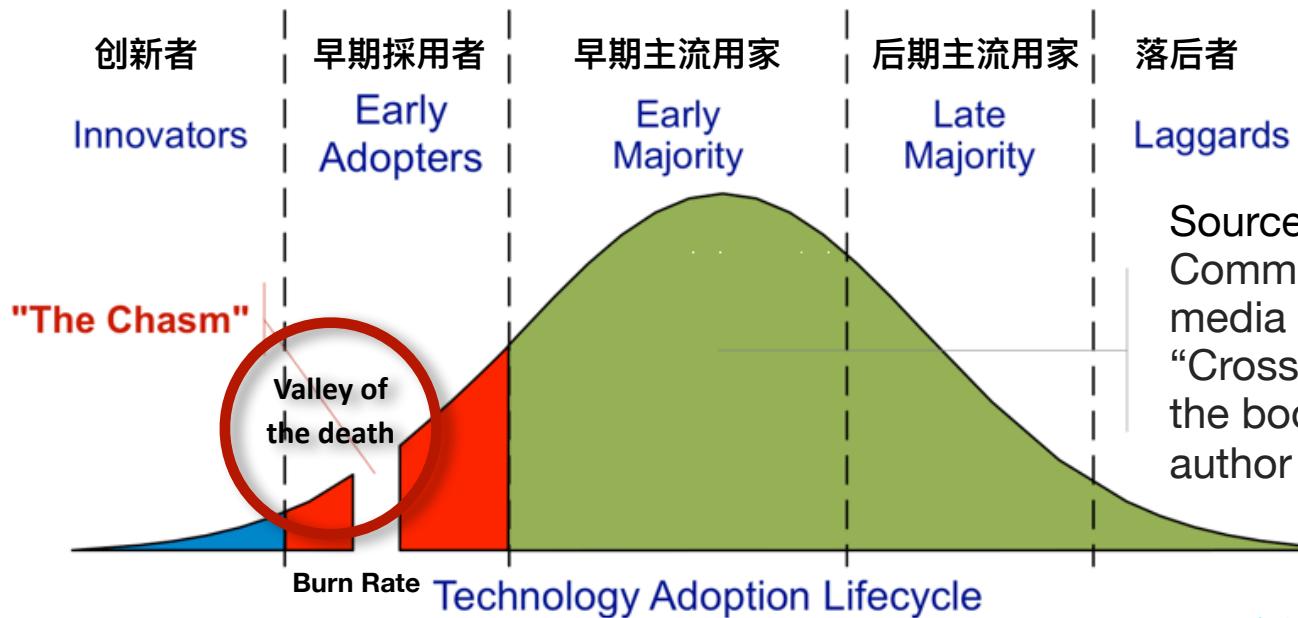


E.g. No-code/Low-code Tools/Hybrid App

Source: <https://www.3pillarglobal.com/insights/creating-an-agile-enterprise-with-minimum-viable-architecture/>



USE **AGILE DEVELOPMENT** TO
ACCELERATE **CUSTOMER DISCOVERY**
SPEED IS KING.



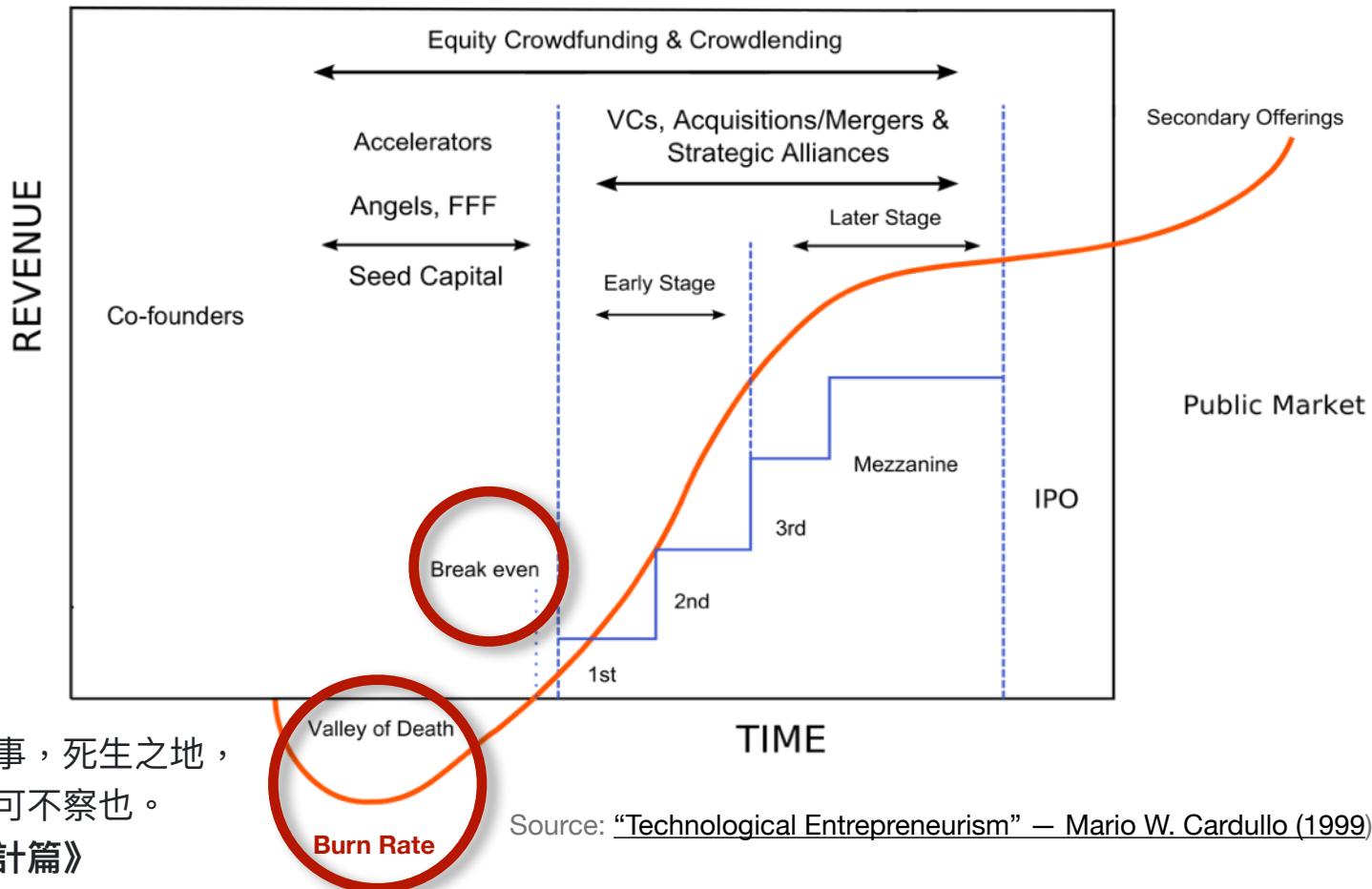
Source: From Wikimedia Commons, the free media repository

“Crossing the Chasm” is the book title by the author **Geoffrey Moore**

Problem	“Not sure how to do Lean Startup”			
Have the problem	Y	Y	Y	X
Know they have it	Y	Y	X	X
Actively seeking a solution	Y	X	X	X

Source: Customer Discovery Labs
<https://www.youtube.com/channel/UCTZRbsUwGmVUdaSwiNqPwg>

Startup Financing Cycle

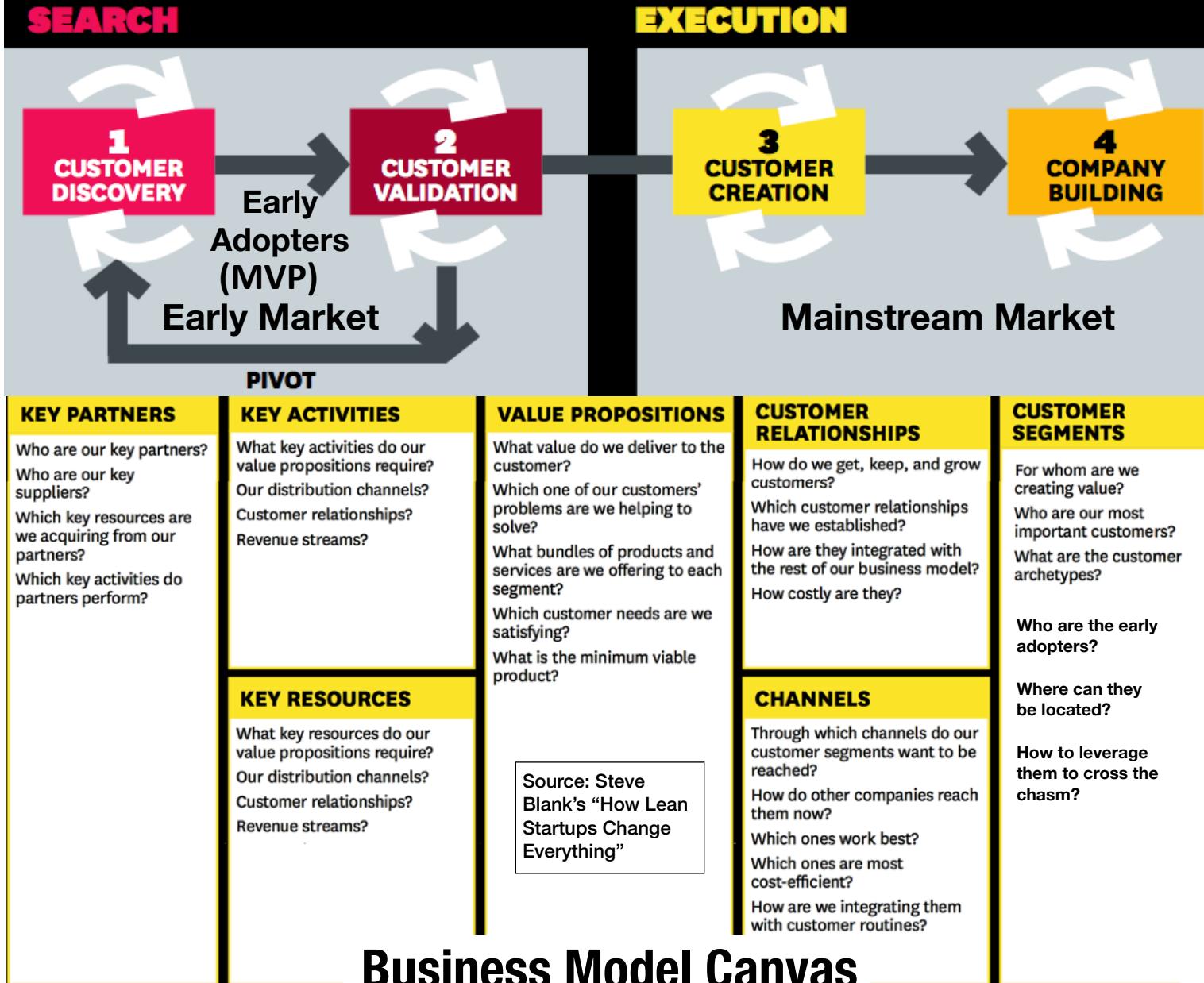


USABILITY TEST PLAN DASHBOARD

AUTHOR DAVID TRAVIS	CONTACT DETAILS DAVID.TRAVIS@USERFOCUS.CO.UK +44 20 7917 9535	FINAL DATE FOR COMMENTS SEPTEMBER 15TH
PRODUCT UNDER TEST What's being tested? What are the business and experience goals of the product? THE WEB SITE AT [TEST SITE TBA]	PARTICIPANTS How many participants will be recruited? What are their key characteristics? 6-8 PARTICIPANTS RECRUITED VIA PANEL. - ALL MUST BE IN FULL-TIME EMPLOYMENT - ALL MUST OWN A SMARTPHONE A MIX OF MEN AND WOMEN, HOMEOWNERS AND RENTERS.	TEST TASKS What are the test tasks? FIND OUT MORE ABOUT THE SCHEME AND DECIDE IF YOU WOULD SIGN UP FOR IT. SIGN UP FOR THE SERVICE. FIND A TRUSTED PLUMBER WHO CAN FIT YOUR NEW DISHWASHER. REVIEW THE OFFER AND ARRANGE A TIME FOR THE PLUMBER'S VISIT. COMPARE 3 ALTERNATIVE DESIGNS OF THE TIME SLOT BOOKING SCREEN PAGE.
BUSINESS CASE Why are we doing this test? What are the benefits? What are the risks of not testing? THE TEST WILL ADDRESS SEVERAL KEY QUESTIONS THAT THE DESIGN TEAM NEED ANSWERS TO FOR THE NEXT ITERATION. FAILING TO ANSWER THESE QUESTIONS NOW INCREASES THE RISK OF DEVELOPING THE WRONG PRODUCT.	EQUIPMENT What equipment is required? How will you record the data? LAPTOP WITH EYE TRACKING SOFTWARE AND MORAE TEST SOFTWARE. ALL SESSIONS WILL BE RECORDED TO DIGITAL VIDEO. WE WILL LOG USABILITY PROBLEMS AND MEASURE TASK COMPLETION RATE AND TIME ON TASK.	LOCATION & DATES Where and when will the test take place? When and how will the results be shared? SEP 23 @ USERFOCUS 180 PICCADILLY, LONDON, W1J 9HF MAP: HTTP://GOO.GL/MAPS/87HKB PHONE DEBRIEF ON SEP 27TH
PROCEDURE What are the main steps in the test procedure?	<pre> graph LR A[0-5 MIN WELCOME / CONSENT FORM] --> B[5-10 MIN PRE-TEST INTERVIEW] B --> C[10-45 MIN CARRY OUT THE TEST TASKS] C --> D[45-50 MIN POST-TEST QUESTIONNAIRE] D --> E[50-55 MIN POST-TEST INTERVIEW] E --> F[55-60 MIN DEBRIEF / PAY INCENTIVE] </pre>	

The Usability Test Plan Dashboard is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported License. Attribution: www.userfocus.co.uk/dashboard

Source: https://www.userfocus.co.uk/articles/usability_test_plan_dashboard.html



Business Model Canvas

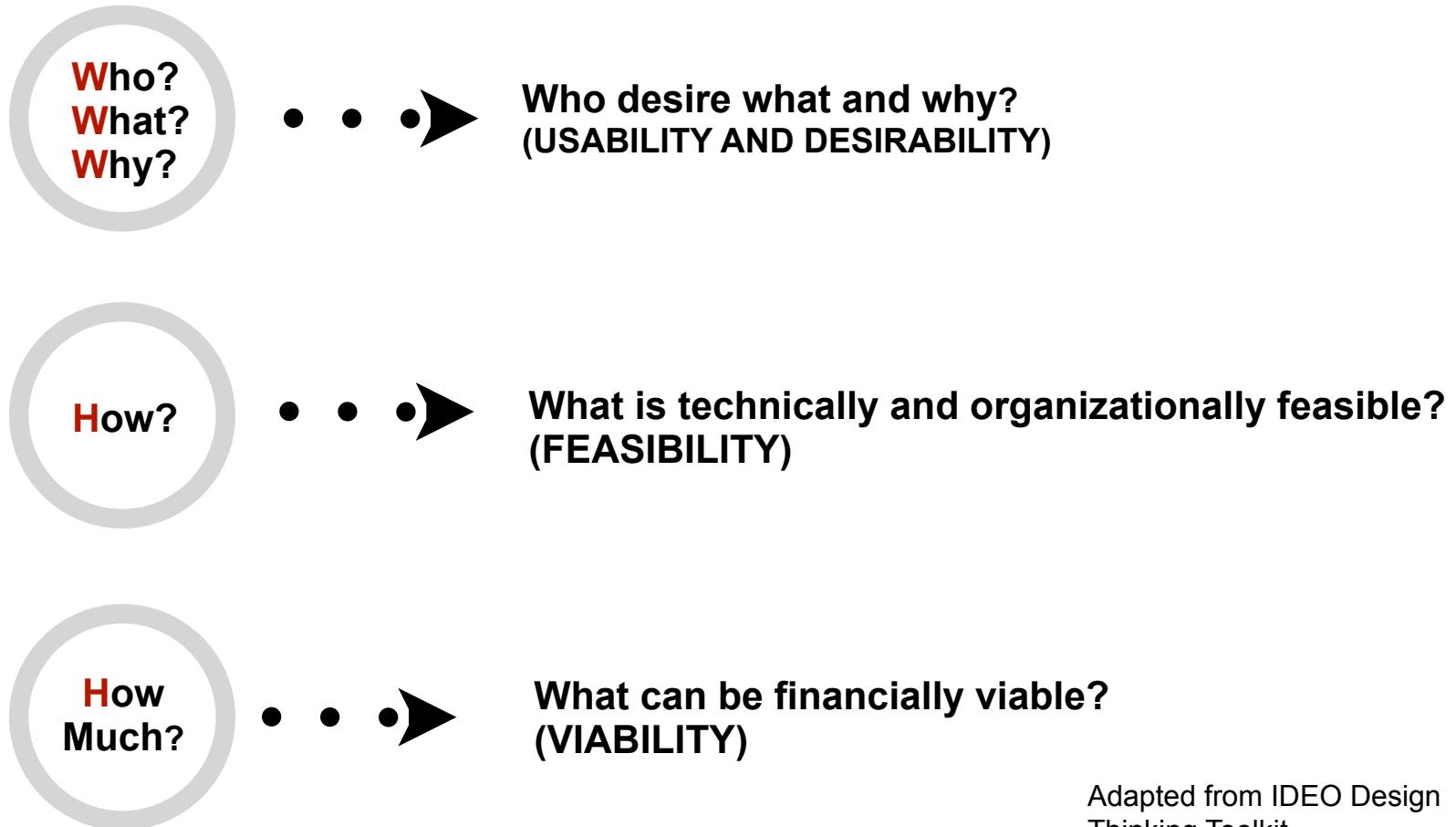
COST STRUCTURE

What are the most important costs inherent to our business model?
Which key resources are most expensive?
Which key activities are most expensive?

REVENUE STREAMS

For what value are our customers really willing to pay?
For what do they currently pay?
What is the revenue model?
What are the pricing tactics?

Source: "Why Lean Start-up Changes Everything" by Steve Blank, Harvard Business Review May 2013



Adapted from IDEO Design Thinking Toolkit

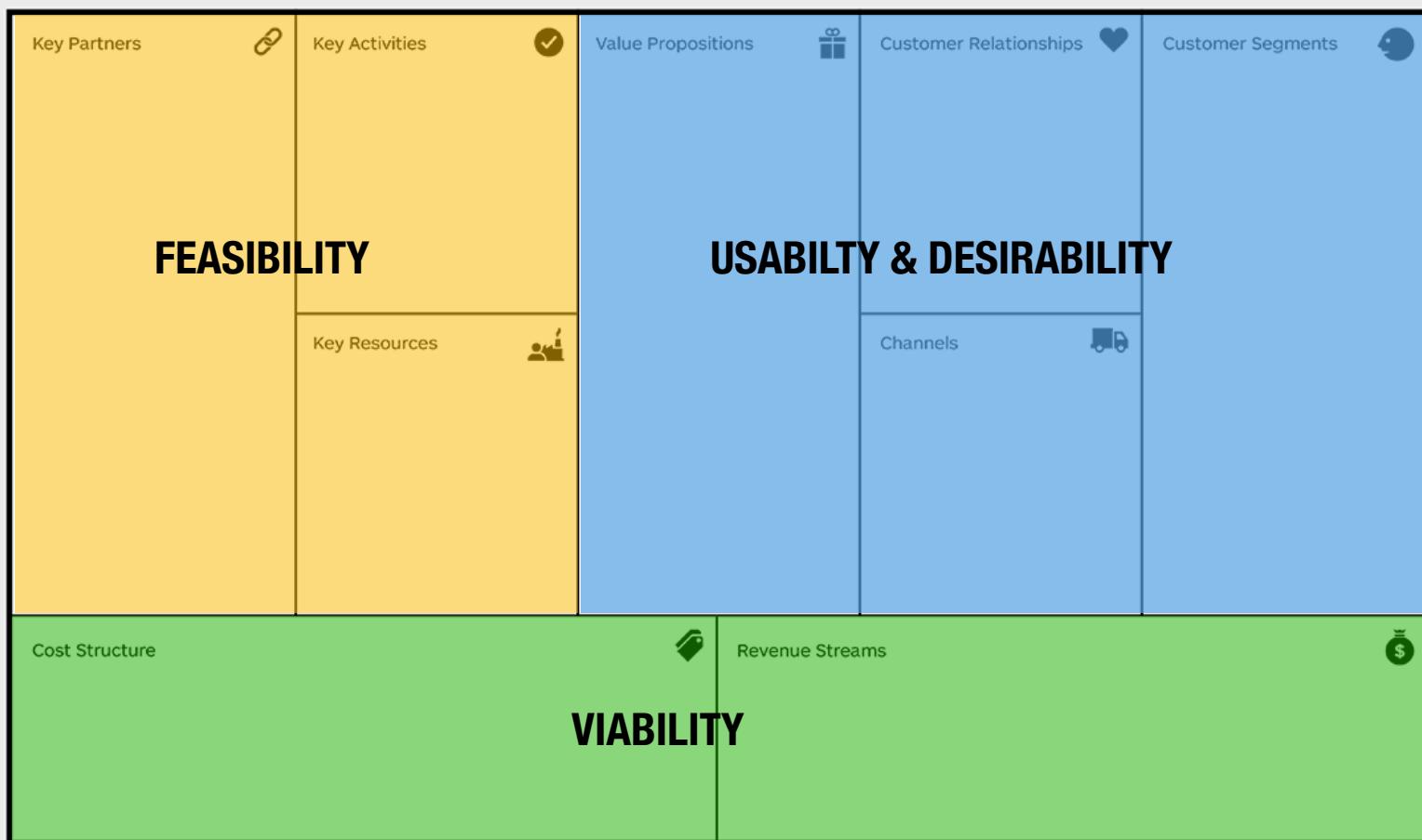
The Business Model Canvas

Designed for:

Designed by:

Date:

Version:



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The makers of Business Model Generation and Strategyzer

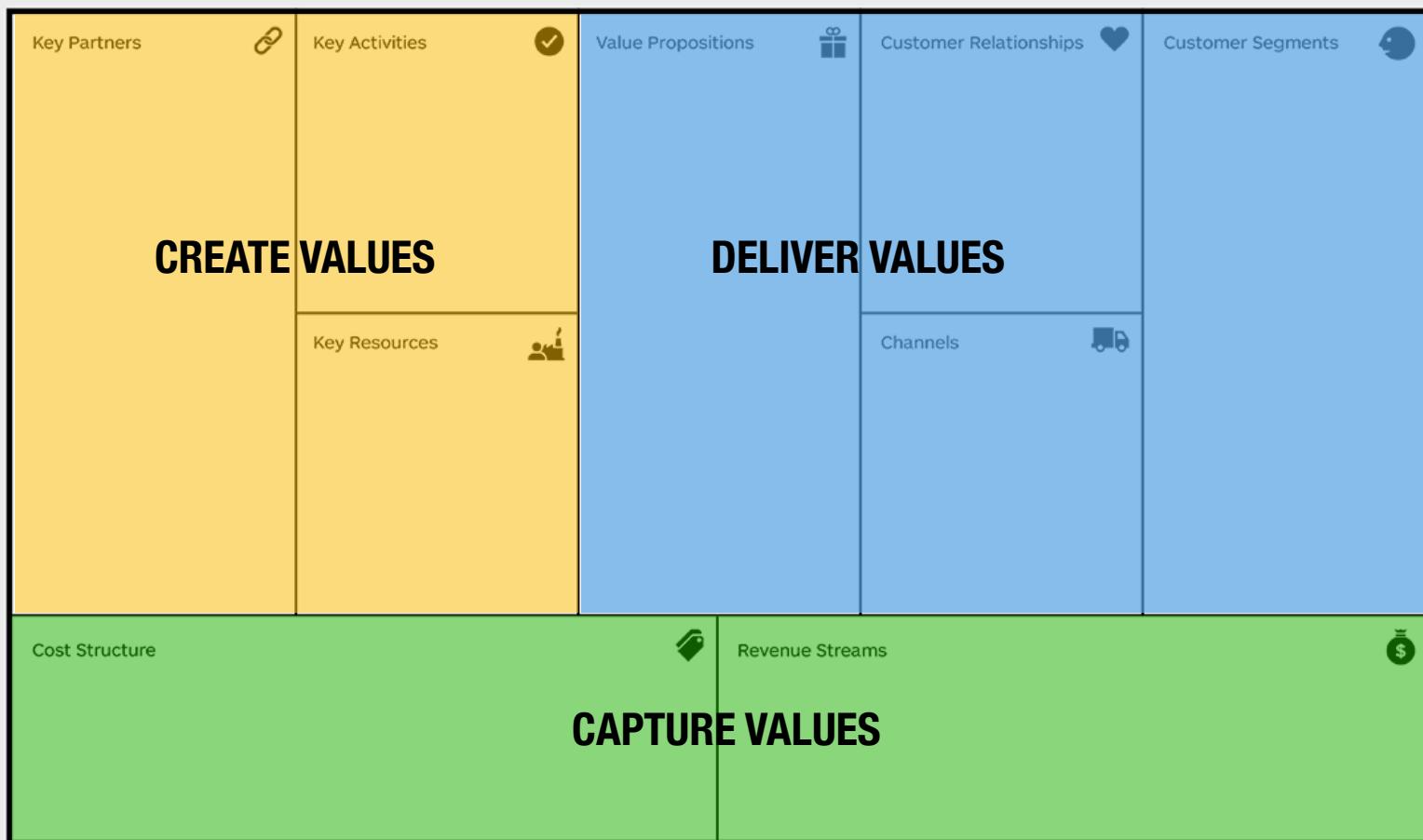
The Business Model Canvas

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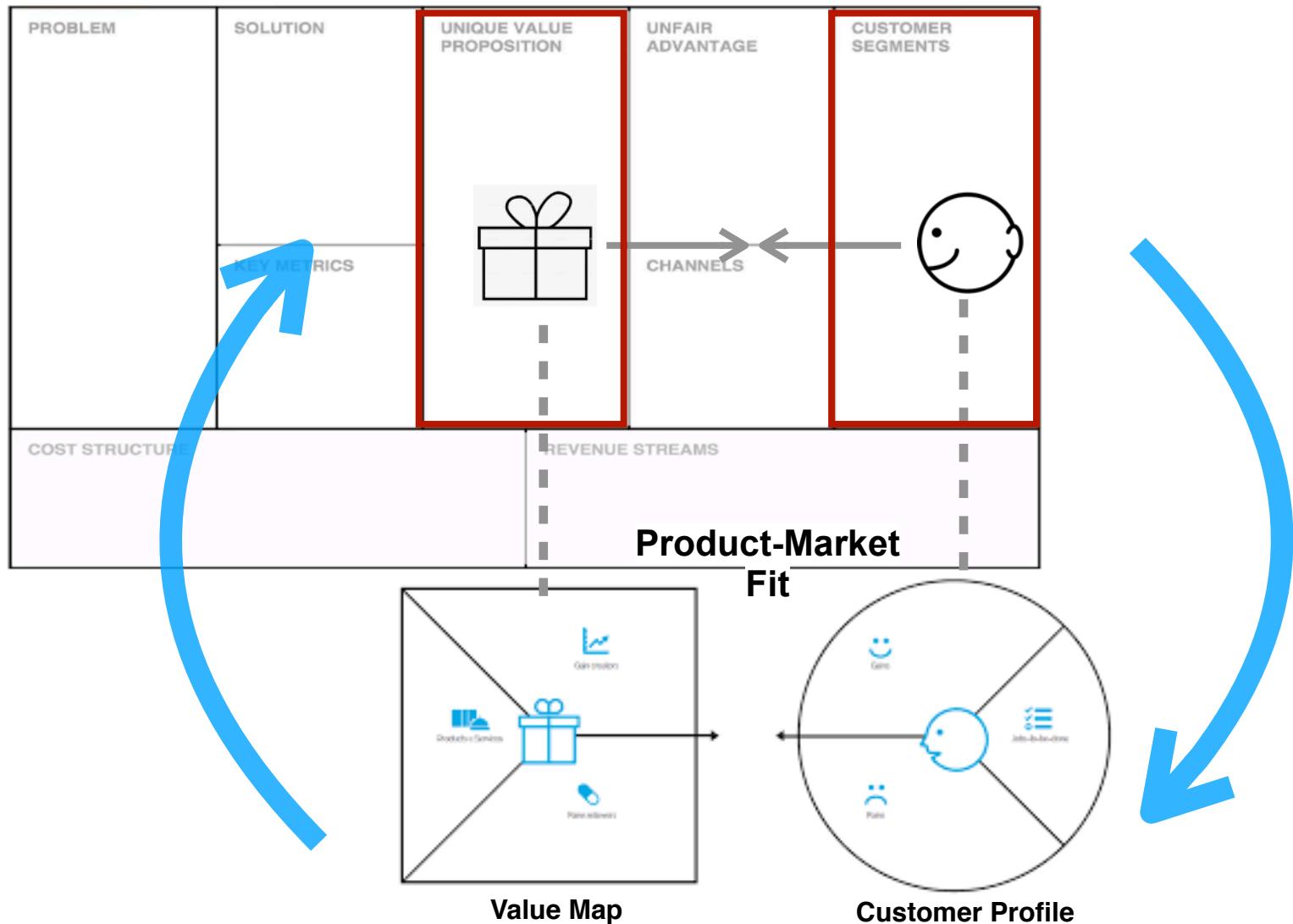
Version:



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<http://creativecommons.org/licenses/by-sa/3.0/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94108, USA.

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The makers of Business Model Generation and Strategyzer

 **Strategyzer**
strategyzer.com





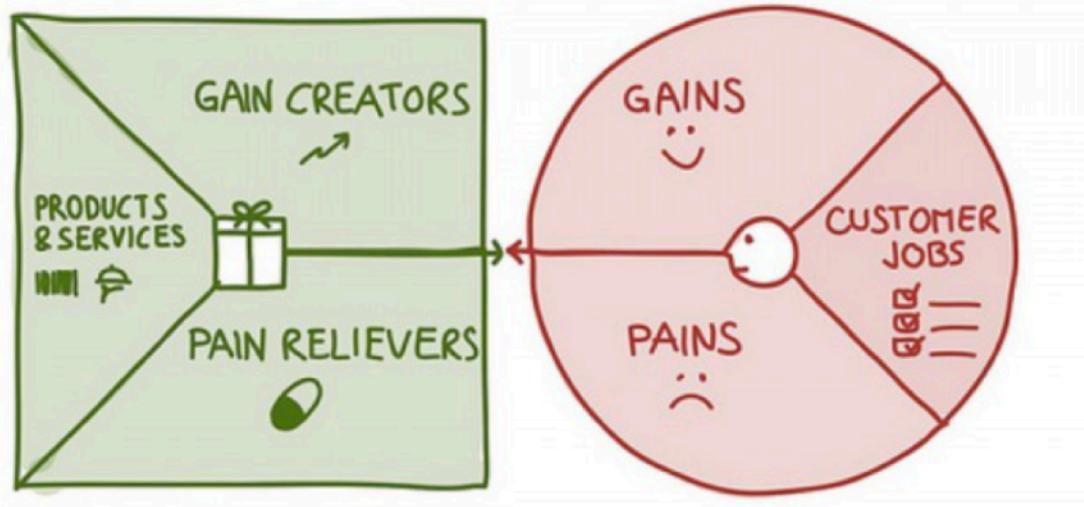
Source: Strategyzer

Story Map

Interesting people to meet?	What new places not to be missed?	Opening hours of hot attractions	Bargains & discounts available	Directions to get to the destinations
As _____ I want _____ So that _____				
As _____ I want _____ So that _____				

**Who
What
Why**

Story Card



I want **<some goal>** ...

so that **<some reason>**."

Source: How to: Link User Stories to the Value Proposition Canvas by Stefan Haas

As a
<certain persona>
I want
<this feature>
so that I can enjoy
<this benefit>

Feature = Gain Creators & Pain Relievers

Benefit = Increase gain & Reduce pain



CASE STUDY: REDESIGNING THE SHOPPING CART

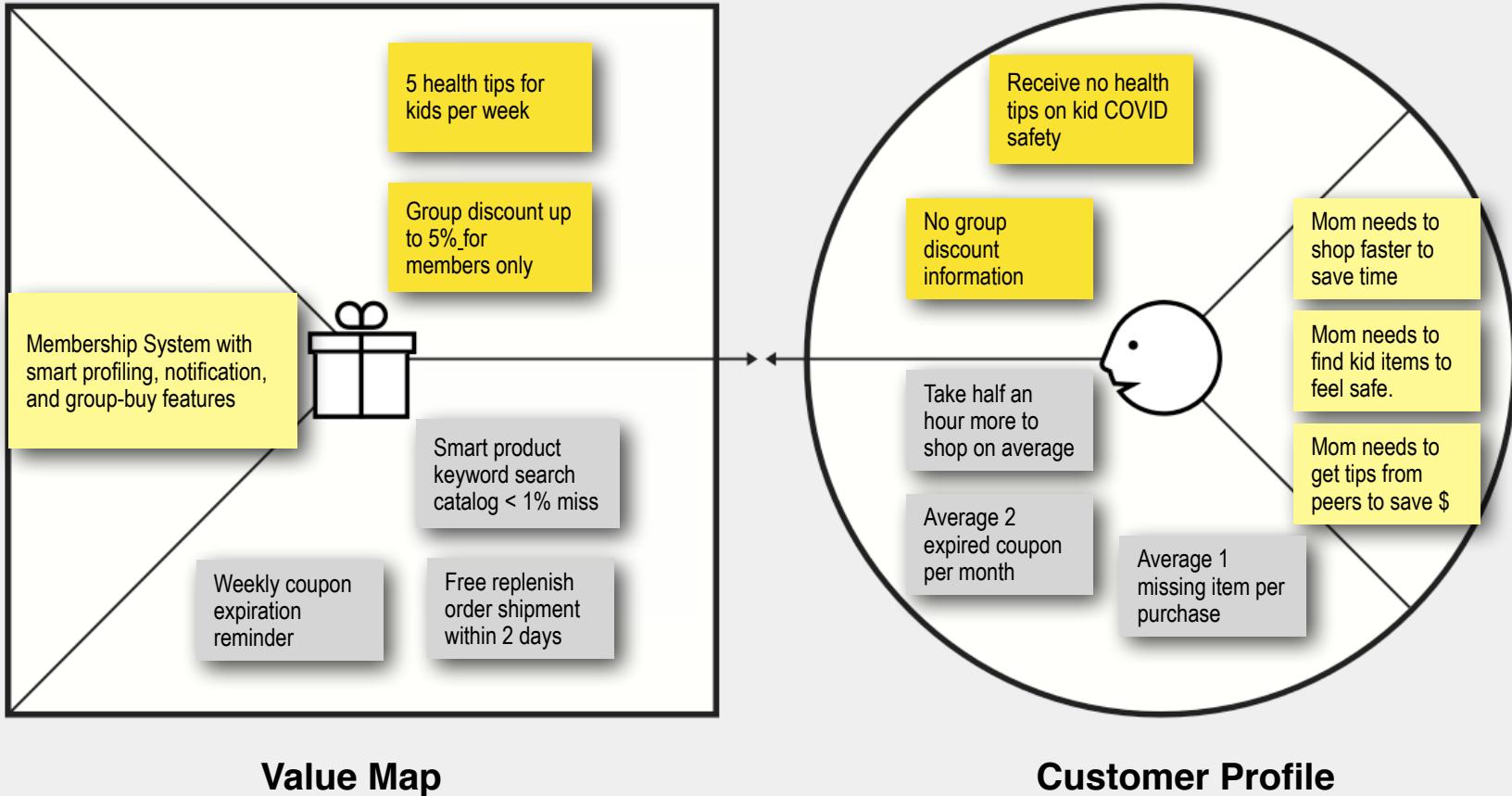


Source: Flickr ([mliu92](#))

Problem Statement

How might we make a full time mom (who/user) address the problem of caring for her kid's safety and efficiently finishing up her shopping (what/need) to achieve the goal of making good use of her time to keep the family and herself happy (why/goal)?

The Value Proposition Canvas



Value Map

Customer Profile

3. Agile Engineering (Using SCRUM)



敏捷开发——互联网时代的软件开发方式

Source: <https://zhuanlan.zhihu.com/p/24840463>

三、有哪些公司在使用敏捷开发

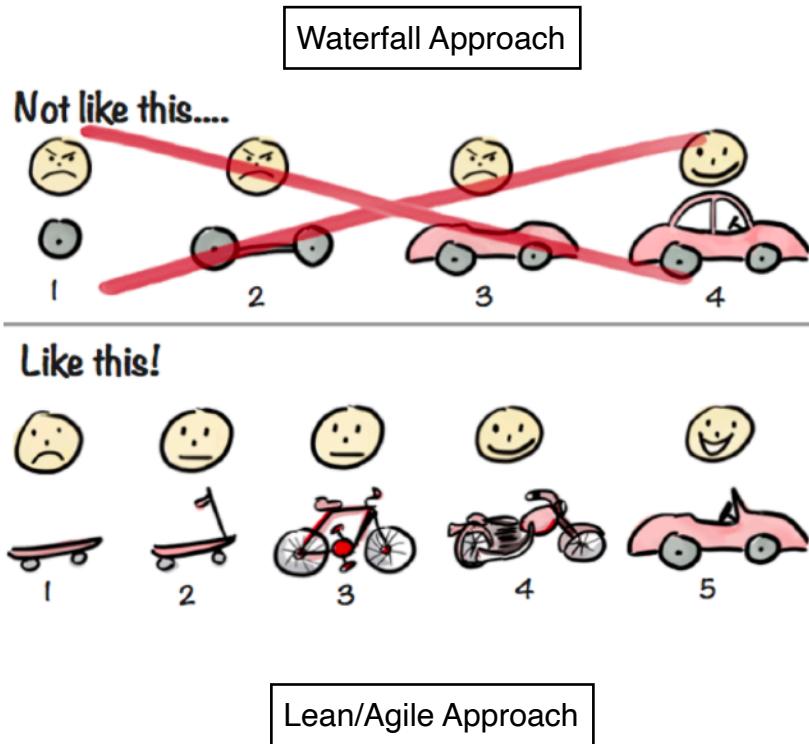
可以说，在如今的软件开发领域，敏捷开发模式已经成为主流，从BAT等互联网一线大厂到中小创业公司，从传统的银行、保险等企业，再到北大、清华的图书馆，都在使用敏捷开发。

国外使用敏捷开发的公司更不用说，微软、Google、Facebook的工程师们都已采用敏捷开发的模式进行软件项目的开发。



131K+
VIEWS

DIFFERENCE BETWEEN **SCRUM & AGILE**



Making sense of MVP (Minimum Viable Product) – and why I prefer Earliest Testable/Usable/Lovable

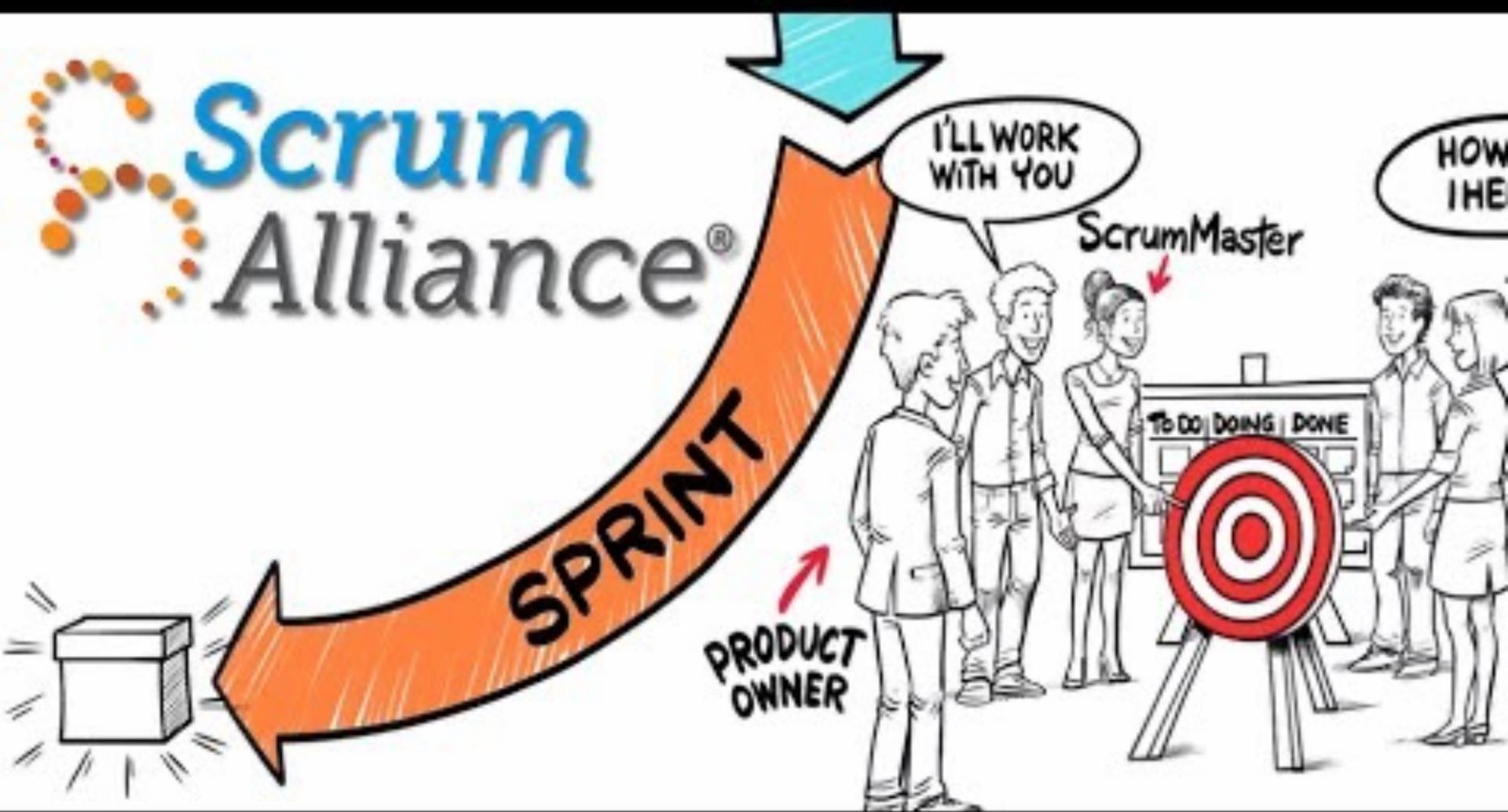


Posted on 2016-01-25 – 12:14
by Henrik Kniberg

[https://blog.crisp.se/2016/01/25/henrikkniberg/
making-sense-of-mvp](https://blog.crisp.se/2016/01/25/henrikkniberg/making-sense-of-mvp)

最小化可行产品 MVP(Minimum Viable Product)

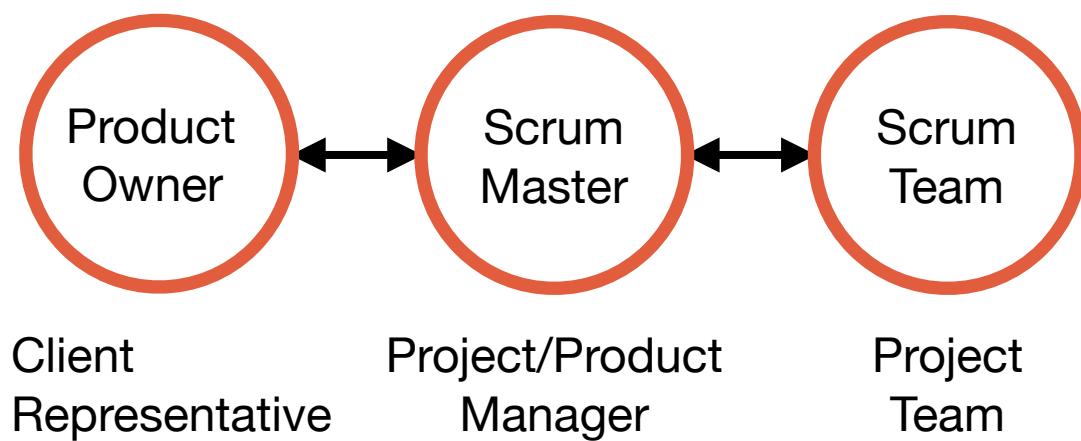




Product Backlog
(Outstanding Feature List in User Stories)

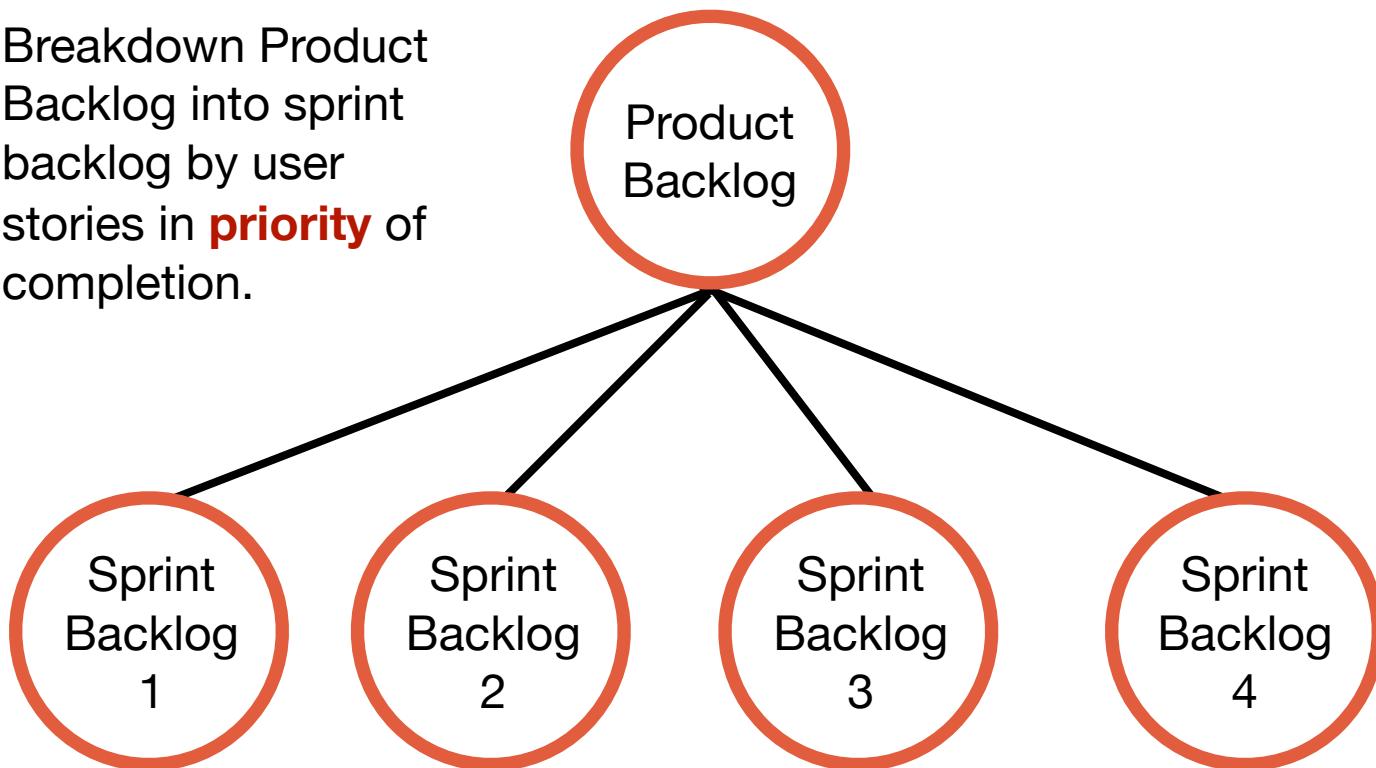
Sprint Backlog/ Planning
(Active Task List in User Stories)

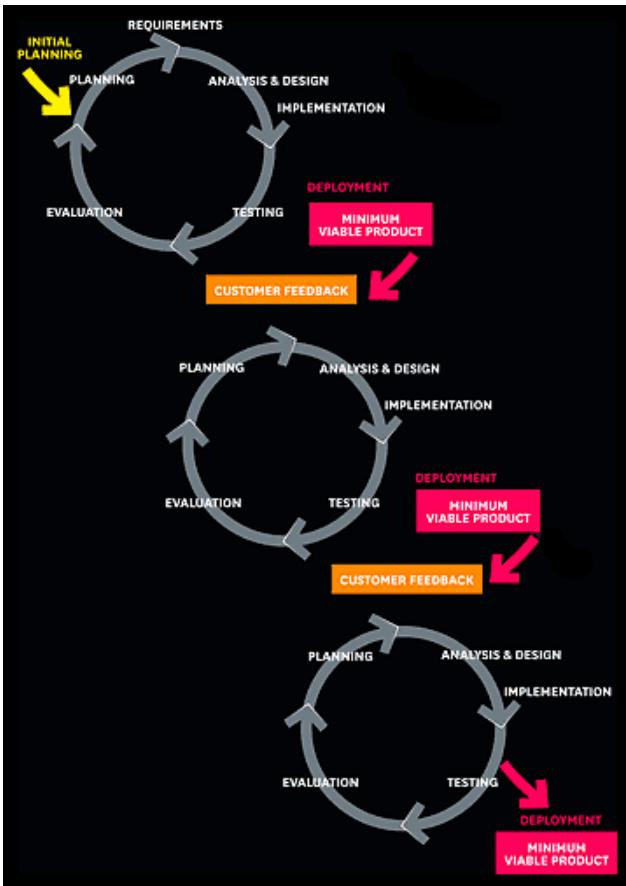
Sprint & Review/ Release Cycle
and Daily Meeting)



- UX Research/Interaction Design
- Information Architect/Content Strategist
- Engineering (Front-end/Back-end)
- Business Analyst/Analytics Specialist
- Visual Designer/CopyWriter/Brand Strategist

Breakdown Product Backlog into sprint backlog by user stories in **priority** of completion.





Source: "Why Lean Start-up Changes Everything" by Steve Blank

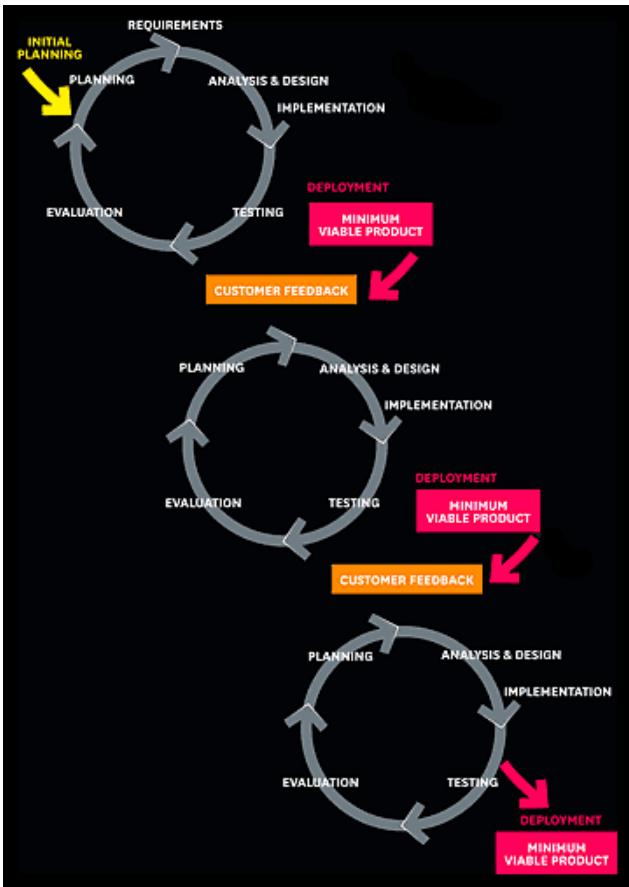
Sprint Planning (Release Planning)



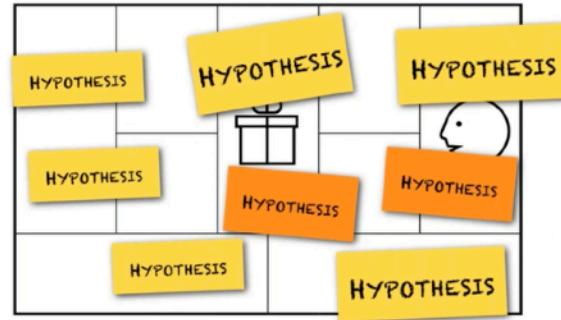
Sprint Review (Release Review)

Daily Scrum (Daily Meeting)

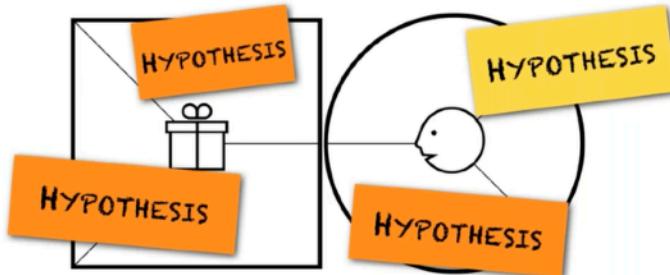
Each build-measure-learn cycle (ends with a review) is called a "sprint" usually measured in 1 to 3 weeks.



Source: "Why Lean Start-up Changes Everything"
by Steve Blank



Source: Strategyzer



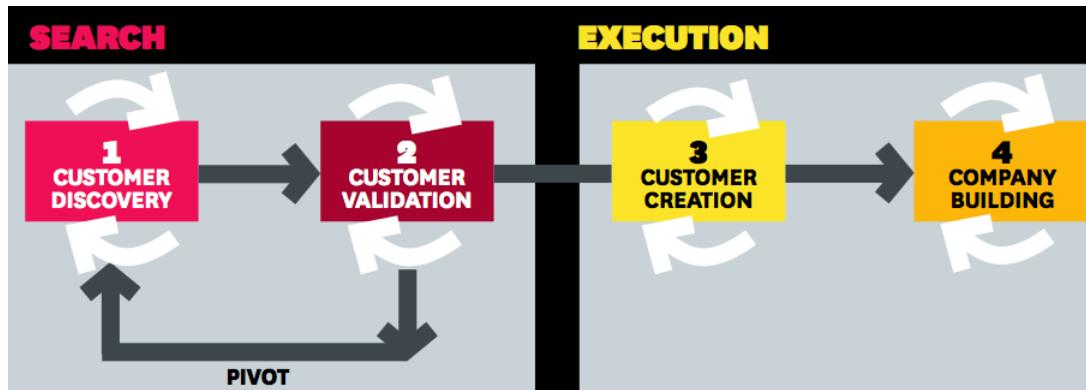
Each build-measure-learn cycle involves **validation of hypothesis**
(explicitly defined in story map as product features & benefits).

High
Uncertainty

What are the few key hypotheses that need to be tested first quickly and inexpensively to make the offer (value proposition) true?

High
Certainty

Source: Strategyzer



Source: "Why Lean Start-up Changes Everything" by Steve Blank

转 敏捷开发中用户故事地图(User Story Mapping)学习

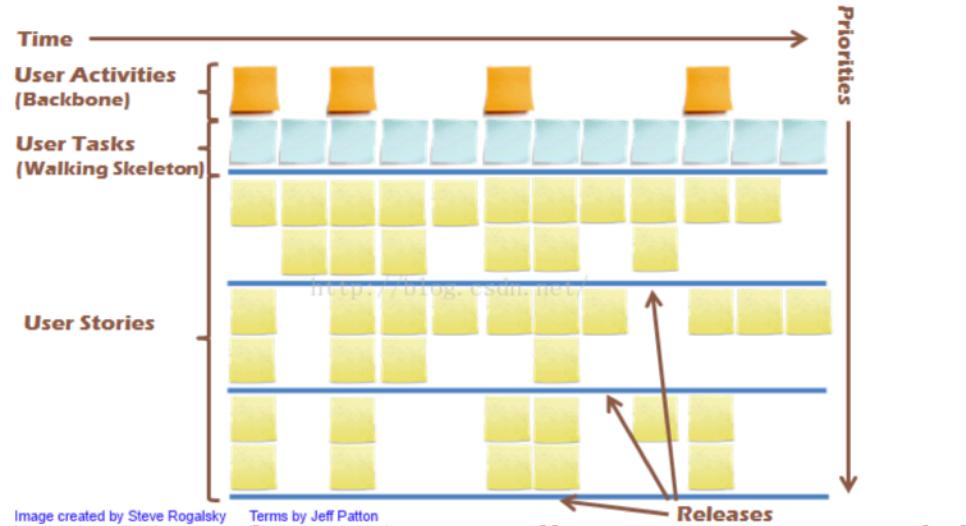
2016年09月25日 20:07:11 佚名-2018 阅读数: 3485

1. 用户故事地图

User Story是敏捷开发和管理的核心，User Story是从用户的角度对系统的某个功能模块所作的简短描述。一个User Story描述了项目中的一个小功能，以及这个功能完成之后将会产生什么效果，或者说能为客户创造什么价值。

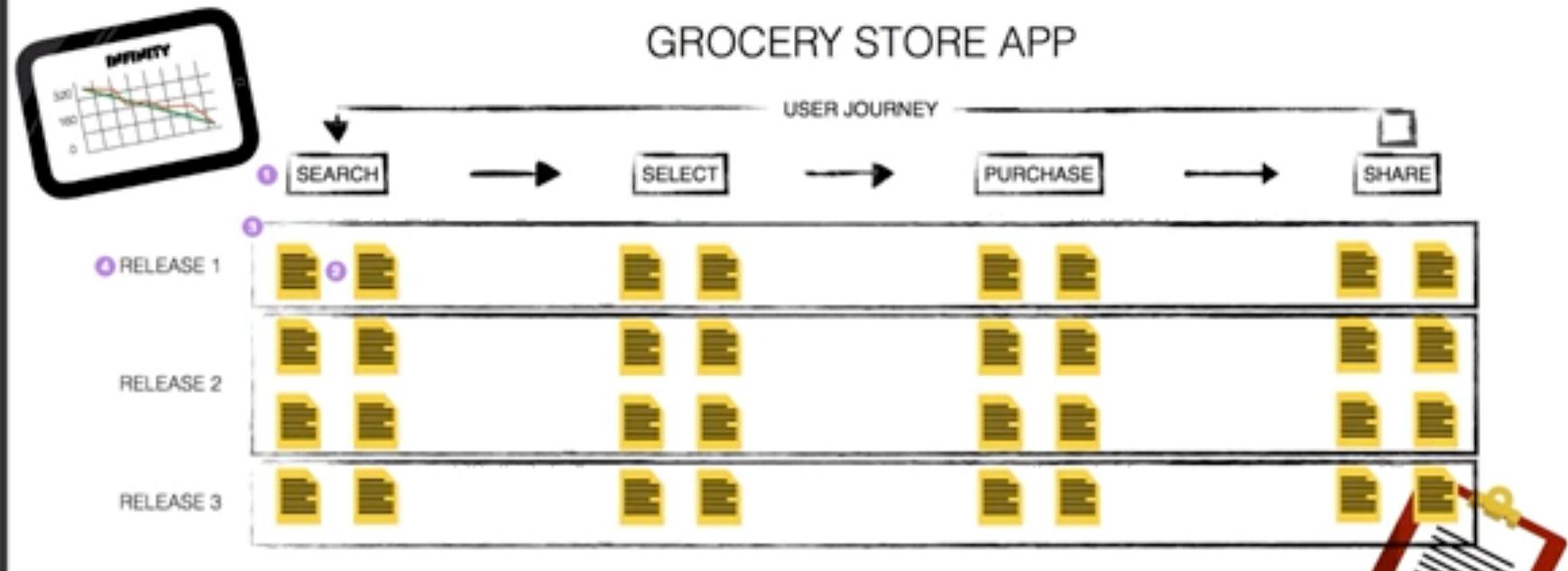
用户故事地图，英文名为User Story Mapping。用户故事地图已经成为敏捷需求规划中的一个流行方法。用户故事地图可以将你的 backlog（待办事项）变成一张二维地图，而不是传统的简单列表。

2. 用户故事地图编写模板



Source: <https://www.jianshu.com/p/2ebff1093f55>

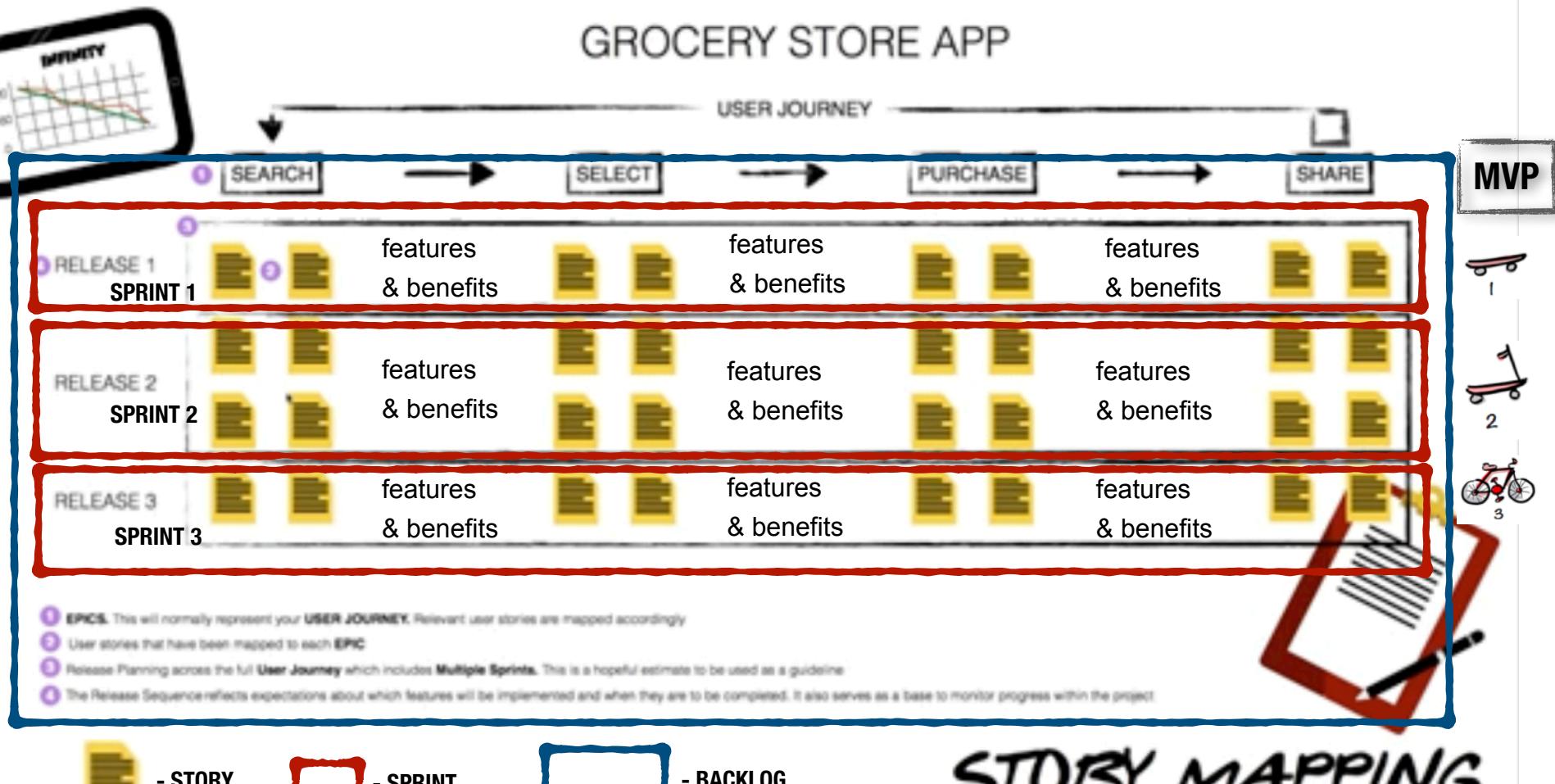
GROCERY STORE APP

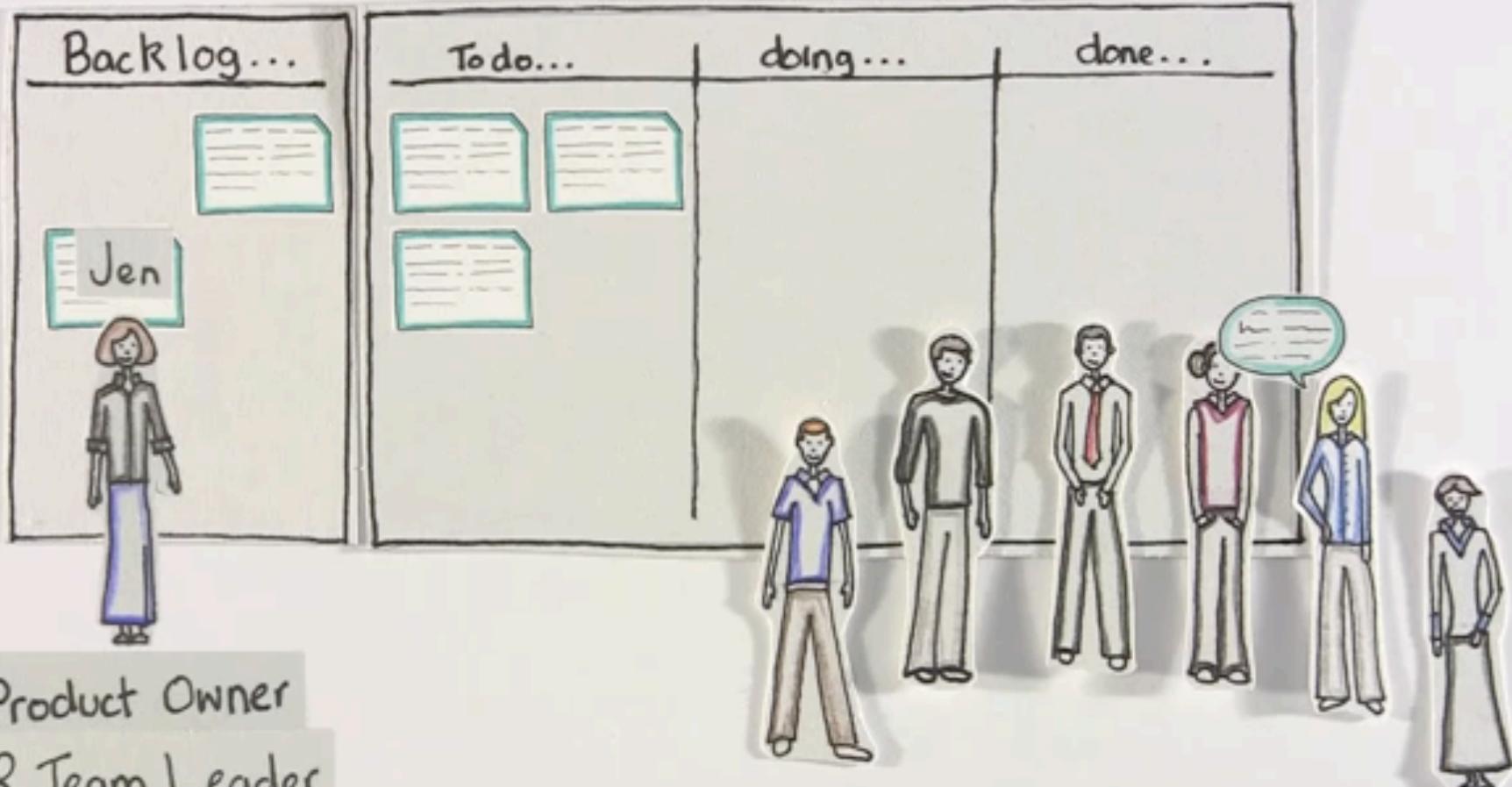


- ➊ EPICS. This will normally represent your **USER JOURNEY**. Relevant user stories are mapped accordingly
- ➋ User stories that have been mapped to each **EPIC**
- ➌ Release Planning across the full **User Journey** which includes **Multiple Sprints**. This is a hopeful estimate to be used as a guideline
- ➍ The Release Sequence reflects expectations about which features will be implemented and when they are to be completed. It also serves as a base to monitor progress within the project

STORY MAPPING

GROCERY STORE APP





<https://www.youtube.com/watch?v=LGeDZmrWsw>

Acceptance Criteria

From story to tasks: Going beyond the user experience and needs to take into consideration the market conditions, business strategy, and operation requirements. The idea is to make the testing relevant, priority-driven, specific and measurable (quantifiable metrics) at detail task level.

Experiment Examples



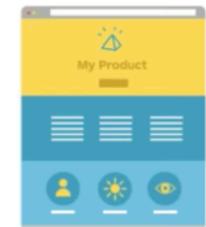
interviews & field research



storyboards & card sort



spec 'sheets & brochures



website & call to action



(pre-)sales & signatures



prototypes/
MVPs

Source: Strategyzer

Components of An Experiment



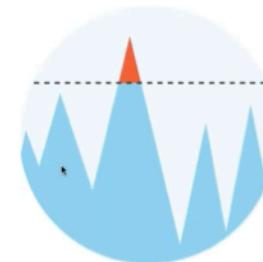
Hypothesis



Experiment



Metrics



Criteria

An assumption that would have to be true for your idea to work.

Outline of the experiment to investigate the validity of your hypothesis.

Outline of the data you will measure.

Target threshold to support or refute your hypothesis.

Source: Strategyzer



Hypothesis

An assumption that would have to be true for your idea to work.

surgeons prefer our new medical device over older technology.



Experiment

Outline of the experiment to investigate the validity of your hypothesis.

get surgeons to sign a recommendation letter to their hospital administrators.



Metrics

Outline of the data you will measure.

measure the percentage of surgeons who are interested AND sign the letter



Criteria

Target threshold to support or refute your hypothesis.

percentage of surgeons who sign = the percentage of surgeons who already bought devices from us

Source: Strategyzer

Test Card

Surgeon's interest	Feb 1
Alex	1 month

STEP 1: HYPOTHESIS

We believe that

surgeons prefer our new medical device over older technology.

STEP 2: TEST

To verify that, we will

get surgeons to sign a recommendation letter to their hospital administrators.

STEP 3: METRIC

And measure

the percentage of surgeons who are interested AND sign the letter

STEP 4: CRITERIA

We are right if

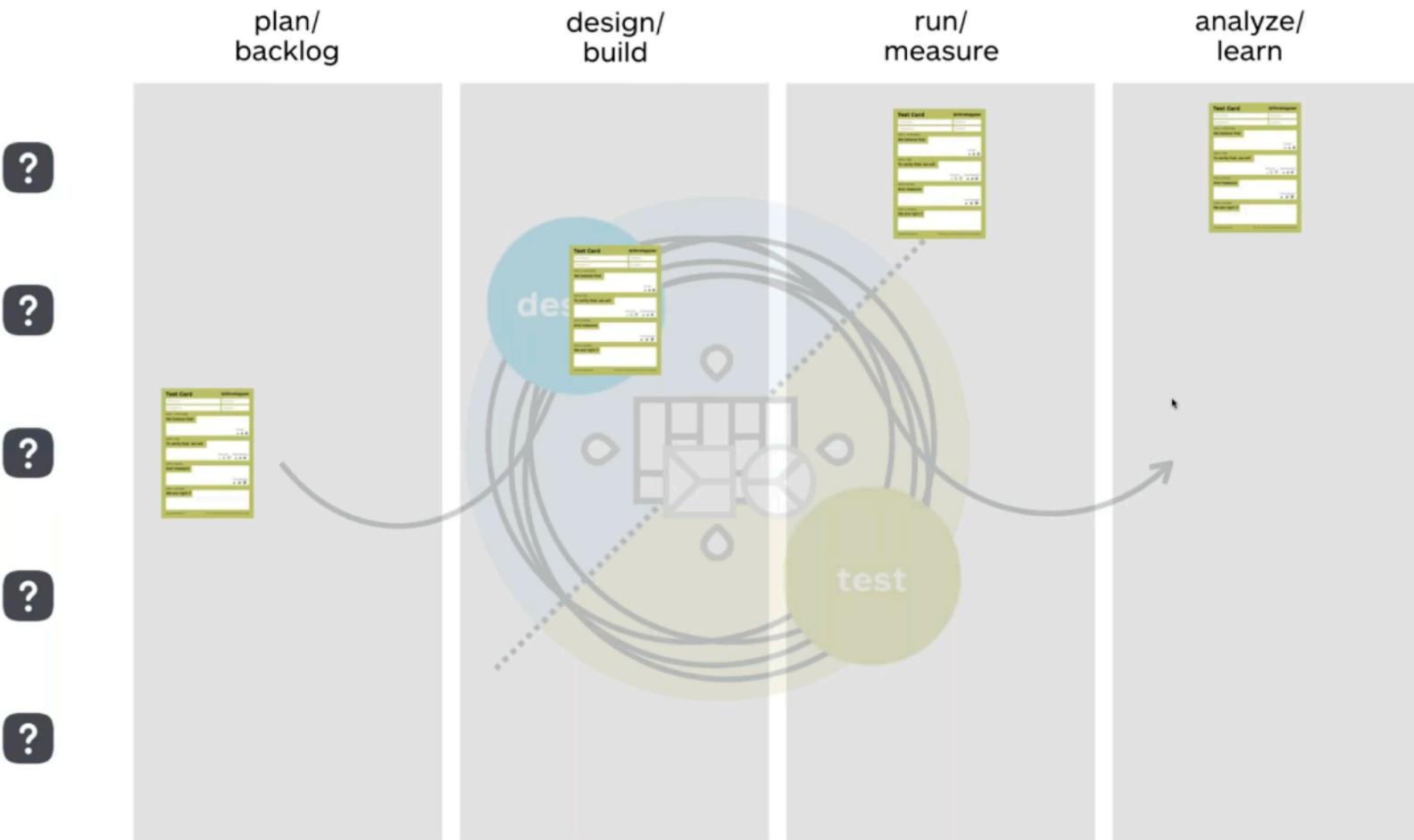
the percentage of surgeons who sign = the percentage of surgeons who already bought devices from us

Strategyzer

Copyright Strategyzer AG

The makers of Business Model Generation and Strategyzer

Source: Strategyzer



Source: Strategyzer

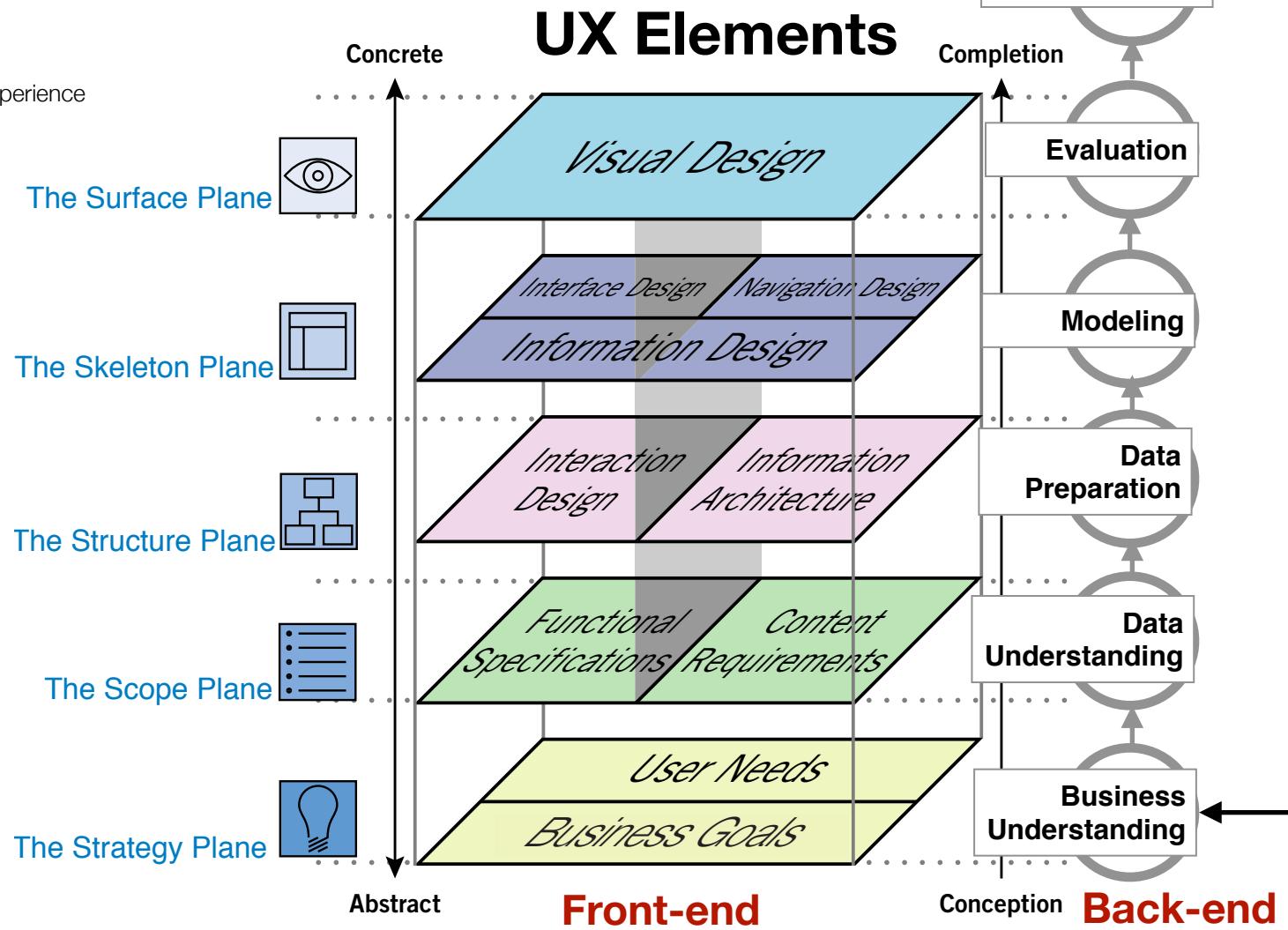
Solution Space

how and
how much

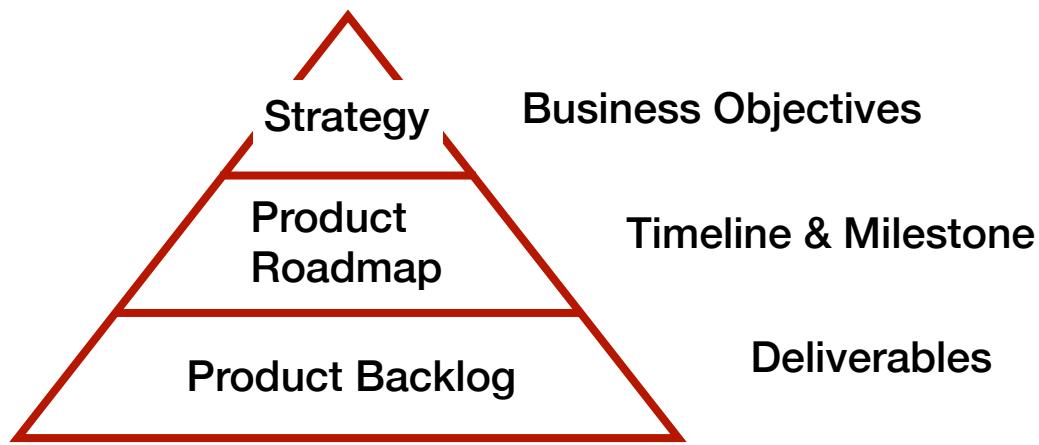
Problem Space

who, what,
and why

Source: Elements of User Experience
by Jesse James Garrett



Business Goals



Use 2×2 matrix for filtering and grouping release priorities.

**BENEFIT/
IMPACT**

**2 x 2
Matrix**

(+)

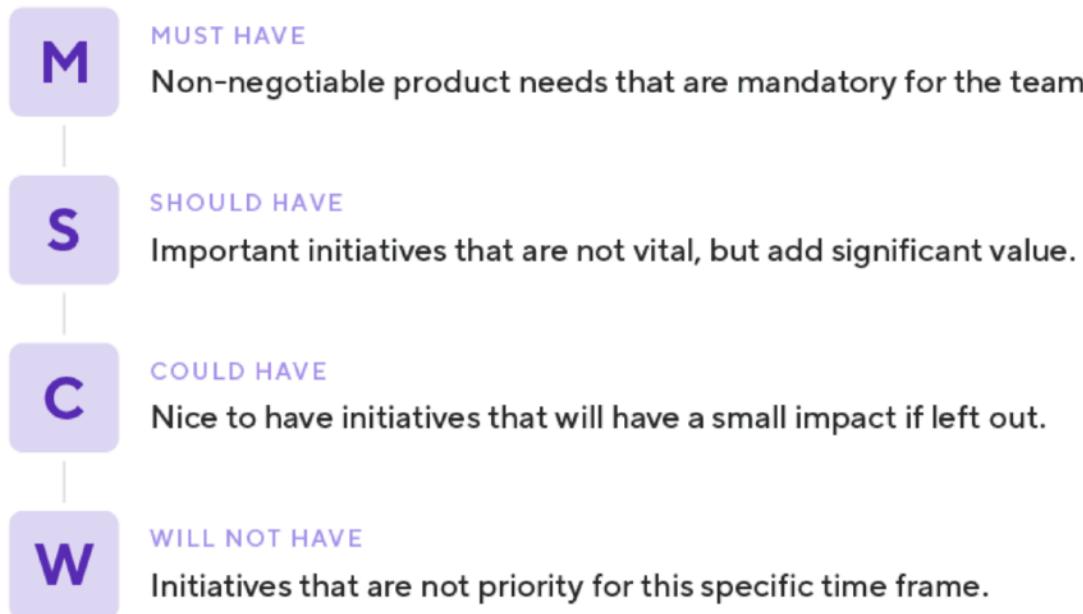
As ____
I want
So that _____

(-)

(+)

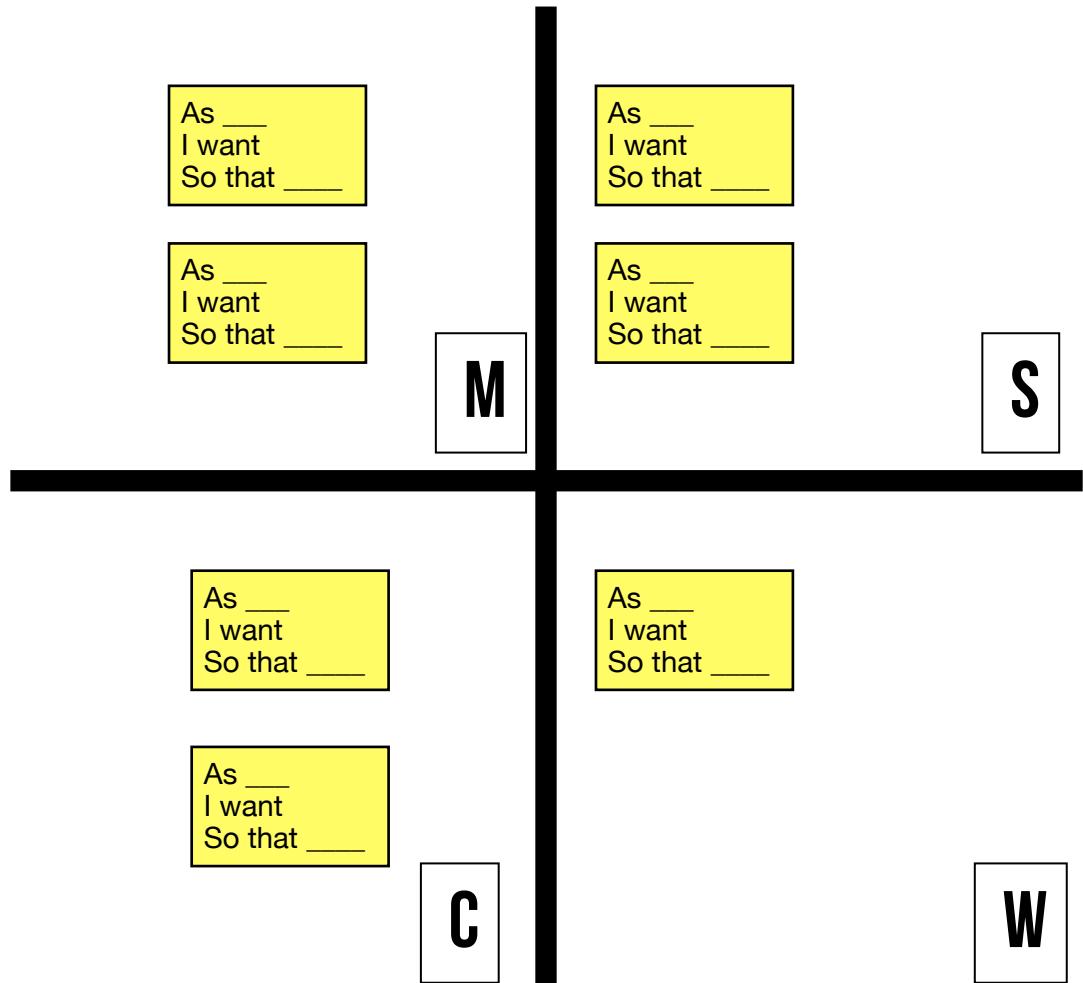
EFFORT/RISK

MoSCoW Method



 ProductPlan

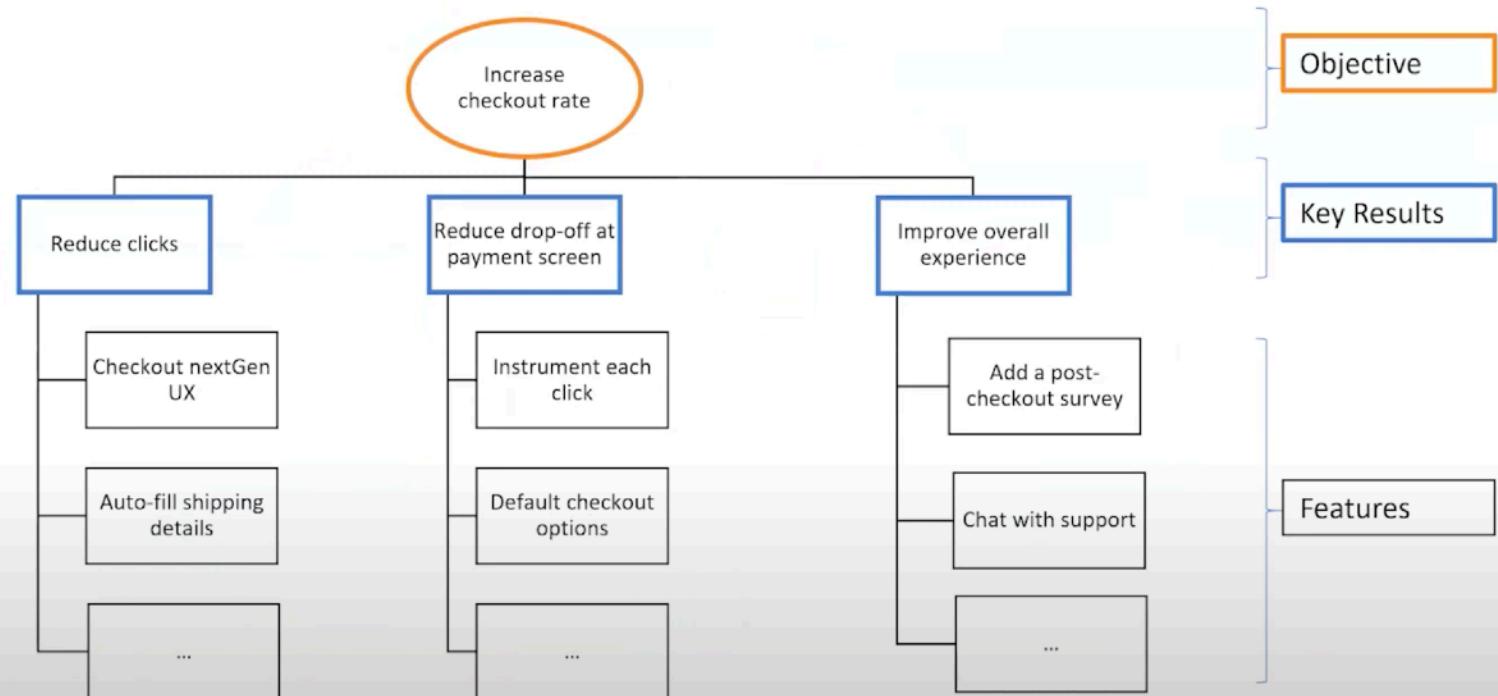
Source: <https://www.productplan.com/glossary/moscow-prioritization/>



**2 x 2
Matrix**

Using Objectives and Key Results (OKR) to develop Product Roadmap

Backlog building



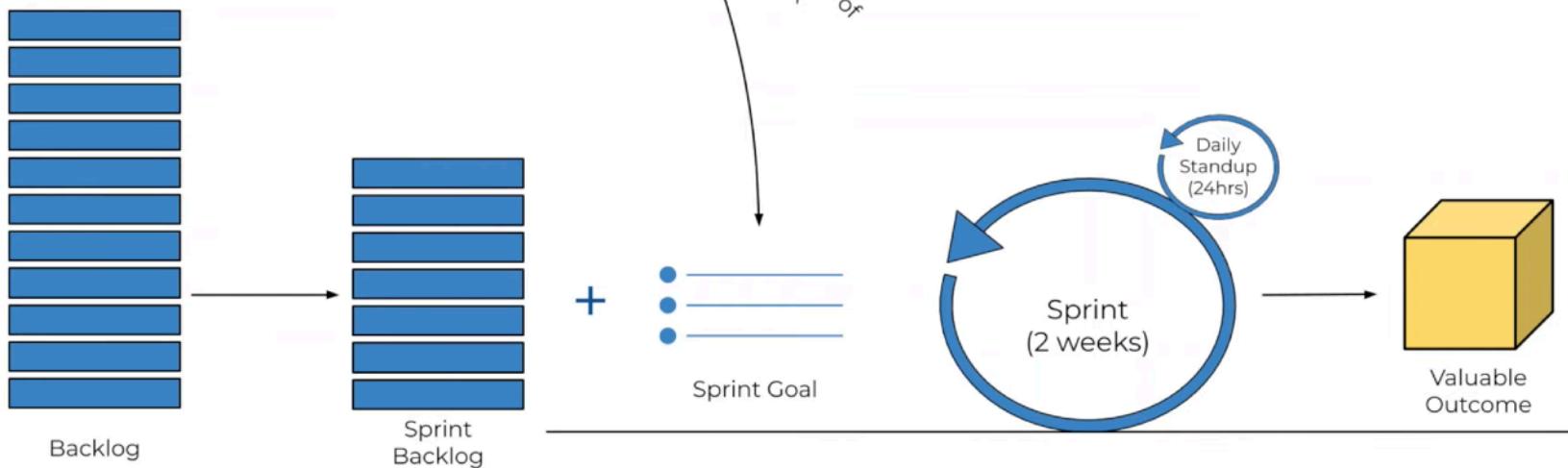
Source: OKR-Driven Product Roadmaps by Microsoft

Principal PM, Yogesh Ratnaparkhi

<https://www.youtube.com/watch?v=S5PgJFhakKw>

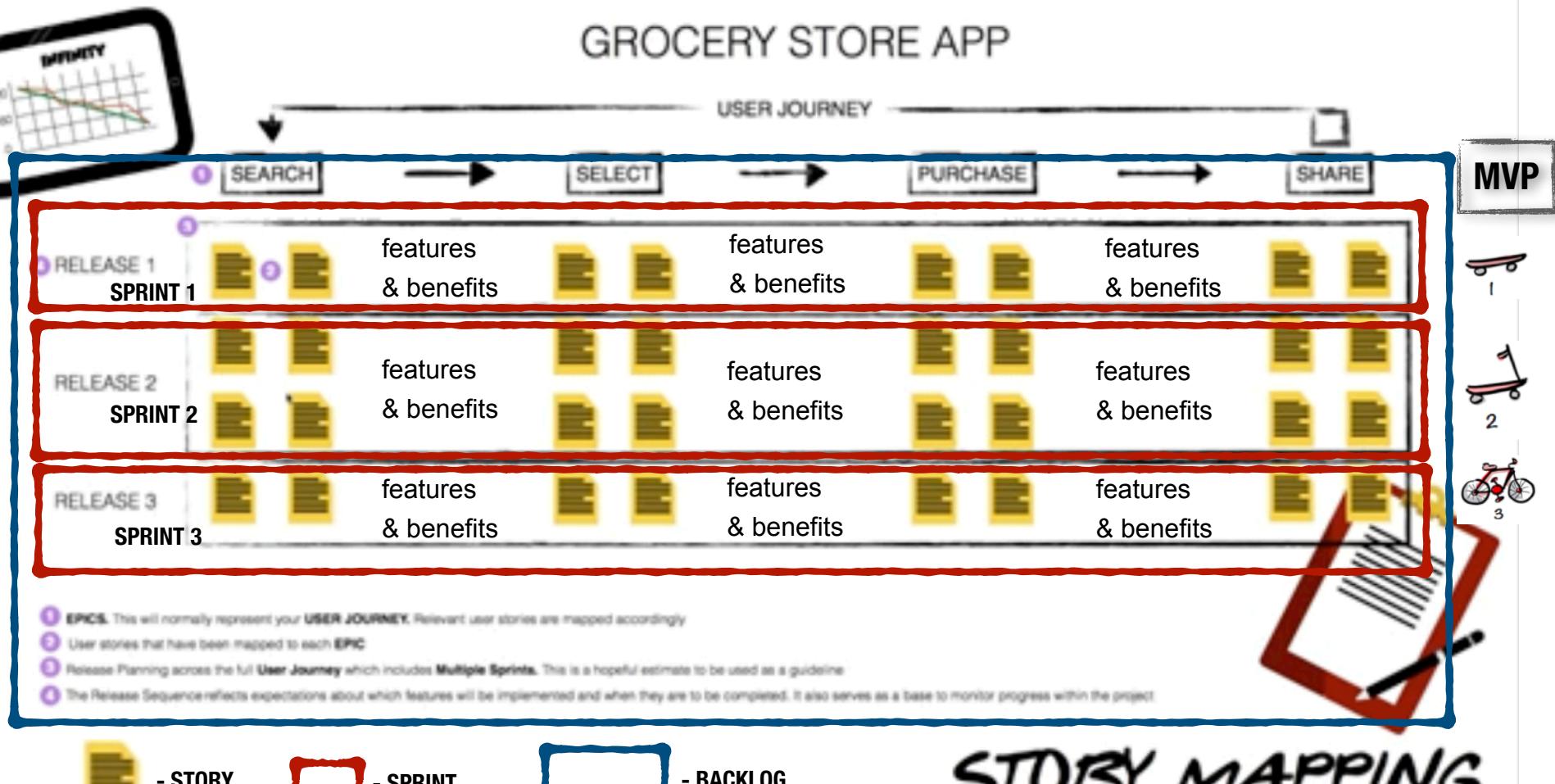
Objective: Make our checkout feel like butter

- KR 1: Increase customer satisfaction from 3.5 to 4.5
- KR 2: Speed up checkout by 2:10 min to 1:00 min
- KR 3: Increase value add rate from 2% to 10%



Source: How to: OKR with Scrum and Sprint Goals (<https://www.youtube.com/watch?v=4h3B7wiNMas>)

GROCERY STORE APP

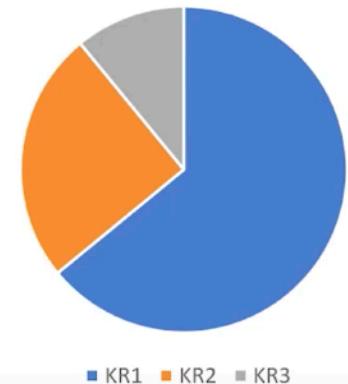


Product Roadmap Plan

Sample: Semester plan

	Quarter1	Quarter 2
Key Results	<ol style="list-style-type: none">1. Reduce clicks by x%2. Reduce drop-off at payment screen by y%3. Improve checkout experience by z%	<ol style="list-style-type: none">1. Reduce clicks by xx%2. Reduce drop-off at payment screen by yy%3. Improve checkout experience by xz%
Features	NextGen Checkout UX MVP Auto-fill shipping details	TBA

Sample: Q1 story points report



Source: OKR-Driven Product Roadmaps by Microsoft
Principal PM, Yogesh Ratnaparkhi
<https://www.youtube.com/watch?v=S5PgJFhakKw>

如何评价OKR在国内企业的实际应用？

中国需要OKR，OKR在中国恰逢其时。

那么，OKR在国内企业的落地成效如何呢？——仍然走在探索的大道上。

一、OKR落地哪家强？

你知道吗？OKR在国内企业的应用，谁最有发言权？

结果当然是——那些大佬公司。

| 华为内部流行一个老鼠偷油喝的故事，说三只老鼠找到了一油瓶，但瓶口很高够不着。老鼠们商量叠罗汉轮流上去喝。当最后一只老鼠刚刚爬上另外两只老鼠的肩膀上时，不知什么原因，油瓶倒了，惊动了人，三只老鼠逃跑了。回到老鼠窝，他们开会讨论为什么失败。第一只老鼠说，我没有喝到油，是因为我觉得第二只老鼠抖了一下。第二只老鼠说，我是抖了一下，是因为最底下的老鼠也抖了一下。第三只老鼠说，没错，我好像听到有猫的声音，我才发抖的。于是三只老鼠哈哈一笑，那看来都不是我们的责任了。这是绩效考核中最可怕的事情，不分清责任，大家都把精力放在了划清责任，而不是改善绩效。最后不仅目标没达成，下次目标也不知道怎么达成。自2015年开始，华为的绩效管理由IBM的PBC模式转而积极探索OKR这一目标管理模式，成为国内首家引入OKR的大型企业。2017年，华为内部的一次绩效满意度调查中显示：开展OKR的团队在绩效管理各维度的满意度全面高于采用传统绩效管理方法的团队。

| 2019年，百度内部开启了OKR改革的浪潮。从最高决策者到基层员工，全部参与到了这场改革中。浪潮过后，百度文化、管理体系都进行了重新建构。

Source: <https://www.zhihu.com/question/59909444/answer/1451569834>

OKR在国内应用的现状



陈镭说OKR和KPA

发布时间: 2018-06-16 11:50

关注

OKR自2013年底传入我国，OKR传入中国大概是在2013年底，主要是一些从硅谷回国创业的人开始运用到他们的公司，以及互联网、IT公司的总部有OKR的应用后，再传到国内公司，逐渐开始受到IT、互联网、高科技、海外投资人的追捧，开始流行起来。

我经常碰到读者朋友问我，他们公司已在推行OKR，实施一段时间后，出现一些问题，向我请教该如何解决，这些问题，归纳起来主要有以下几点：

- 目标不具有挑战性

很多人的OKR设置看上去就象日常的工作，没有什么可挑战性，HR作为对接归口部门，又无法有针对性的指出，这些OKR应该如何设置才具有可挑战性。而许多部门负责的OKR也都以流程化的工作作为目标，也就是说当部门负责人对OKR也只能这样的认知和理解时，他们是无法指导下属应该如何设置出有挑战性的目标，那么与OKR的本义就相差甚远了。

Source: <https://baijiahao.baidu.com/s?id=1603394062509525600&wfr=spider&for=pc>

Topics

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[10 Usability Heuristics for User Interface Design](#)

Mapping User Stories in Agile

Summary: User-story maps help Agile teams define what to build and maintain visibility for how it all fits together. They enable user-centered conversations, collaboration, and feature prioritization to align and guide iterative product development.

By Anna Kaley on January 24, 2021

Topics: [Agile](#)

Share this article:



In traditional product-development processes, teams often rely on wasteful and lengthy business requirements documents and functional design specifications to move from a [vision for a digital product](#) to outlining what it should include and how it should work. Instead of having an ongoing conversation about users, problems, ideas, and solutions, teams expect distributed documentation to suffice.

However, these documents usually fail; no one has the time or attention to read them, and even those who *do* read them end to end will likely come away with vastly different interpretations of what to build. Rather than propelling productivity, these heavy documents stifle creativity, communication, collaboration, and innovation from the start. As an alternative, **user-story maps** work much better as lightweight representations of the digital product that an Agile team intends to build.

Source:<https://www.nngroup.com/articles/user-story-mapping/>

When and How to Create a User Story Map

Story maps can be used at any point in the product-development process to drive discussion and align the team. You can create a story map to plot the experience for a new product, after initial discovery work, or for an existing product, after usability testing. In either case, the story map begins to illustrate solutions to the problems uncovered in the research.

Once created, teams will maintain and refer back to their story map over time; they add to it, modify it to reflect the actual state of the product, and use it to guide what to work on and release in subsequent sprints.

Story maps are best constructed by small teams with representatives from product, UX, development, and QA working collaboratively to discuss and shape the product plan. It's important to establish the following context before beginning:

Source:<https://www.nngroup.com/articles/user-story-mapping/>

Implementing AGILE product development using SCRUM with Airtable

Easy Scrum Based Kanban Board

Updated 2 years ago
Copied 402 times

[Tweet](#) [Share](#)



Dylan de Heer

User Experience researcher, Interface designer,
Atomic Design System specialist & Consultant

Scrum Based Kanban Board for Agile Teams

#PRODUCT, DESIGN, AND UX #SCIENCE AND TECHNOLOGY

#PROFESSIONAL

As a product owner you can easily get frustrated with the amount of work that goes into setting up something in Jira or similar software to start out a new project. I believe that by limiting the information you have to digest, you create an easier to manage work environment. Therefore, I created this little nifty scrum base that will feel familiar to anyone that has worked with software development tools before.

[Copy base](#)

Stories

- [Backlog](#)
- [Current sprint](#)
- [Sprint planning](#)

Epics

- [Grid view](#)
- [Gallery](#)

Versions

- [Grid view](#)

[Explore the base](#)

VERSION	
First improvement	
EPIC	Improve navigation
1	(XKE-1) Design new navigation
2	(XKE-3) Design improved search concept
3	(XKE-2) Implement new navigation
4	(XKE-4) Implement improve search
Improve relevance	
5	(XKE-8) Design request re-run concept
6	(XKE-6) Design topic request concept (overflo...
7	(XKE-7) Design Slack integration for topic ...
8	(XKE-15) Design a way to show type of event (tech...
9	(XKE-17) Facilitate automated lean coffee ...
10	(XKE-16) Design a way to show session maturity...
30 records	

Source: <https://www.airtable.com/universe/expPZ1WqgJyDTg8FZ/scrum-based-kanban-board-for-agile-teams>

Interfaces

SCRUM Kanban Original

SHARE HELP ?

Stories **Stories** Epics Versions Add or import

Views Backlog 1 hidden field Filter Grouped by 2 fields Sorted by 2 fields Color Share view

Find a view

Backlog Current sprint Sprint planning

Create... Grid Form Calendar Gallery Kanban Timeline Gantt New section

Reference Title Description Design file Attachments Assignee

VERSION First improvement Count 30

EPIC Improve navigation 4

1	(XKE-1) Design new navigation	Design new navigation	Title is self explanatory	https://www.figma.com/file/W1wEcuqu8zYVwue...	Dylan de Heer
2	(XKE-3) Design improved search concept	Design improved search concept	Title is self explanatory		Dylan de Heer
3	(XKE-2) Implement new navigation	Implement new navigation	This needs refinement after design is done		
4	(XKE-4) Implement improve search	Implement improve search	This needs refinement after design is done		

+ EPIC Improve relevance 6

5	(XKE-8) Design request re-run concept	Design request re-run concept		https://www.figma.com/file/W1wEcuqu8zYVwue...	Dylan de Heer
6	(XKE-6) Design topic request concept (overflow...)	Design topic request concept (overflow style)	- Request topics - Vote for topics...	https://www.figma.com/file/W1wEcuqu8zYVwue...	 Dylan de Heer
7	(XKE-7) Design Slack integration for topic ...	Design Slack integration for topic requests (plus emoji ...)			Dylan de Heer
8	(XKE-15) Design a way to show type of event (tech,...	Design a way to show type of event (tech, design, ...)		https://www.figma.com/file/W1wEcuqu8zYVwue...	Dylan de Heer
9	(XKE-17) Facilitate automated lean coffee events during XKE	Facilitate automated lean coffee events during XKE			Dylan de Heer

30 records

Improvements to the Template

Interfaces

SCRUM Kanban New

SHARE HELP ? 🔍 🔍 AUTOMATIONS APPS

Stories (highlighted with a red box) Epics Releases Team Tasks

Views Raw Backlog Hide fields Filter Group Sort Color Share view

Find a view

Raw Backlog (selected)

	Reference	Title	Description	Design file	Attachments	Assignee
1	(XKE-8) Design request re-run concept	Design request re-run concept		https://www.figma.com/file/W1wEcuqu8zYVwue...		Dylan de Heer
2	(XKE-26) Kill deprecated front-end	Kill deprecated front-end	The old infrastructure still contains the code of the old front-end however, to our knowledge, most of the front-end is not used anymore...			
3	(XKE-1) Design new navigation	Design new navigation	Title is self explanatory	https://www.figma.com/file/W1wEcuqu8zYVwue...		Dylan de Heer
4	(XKE-6) Design topic request concept (overflow style)	Design topic request concept (overflow style)	- Request topics - Vote for topics...	https://www.figma.com/file/W1wEcuqu8zYVwue...		Dylan de Heer
5	(XKE-28) Create key scenarios for design	Create key scenarios for design	Before we can design anything in the future, we need to understand the key scenarios that need to be covered. In order to achieve this we nee...			Dylan de Heer
6	(XKE-25) Migrate Python to NodeJS	Migrate Python to NodeJS	We need to get rid of the old infrastructure. Part of the backend has already been migrated to NodeJS, but about 75% remains.			
7	(XKE-27) Migrate app from App Engine to Firebase	Migrate app from App Engine to Firebase	The fewer environments we have to keep in check, the better. In order to achieve this we want to switch from App Engine to Firebase.			
8	(XKE-22) Design Slack bot that recommends session on ...	Design Slack bot that recommends session on ...				Dylan de Heer
9	(XKE-3) Design improved search concept	Design improved search concept	Title is self explanatory			Dylan de Heer
10	(XKE-5) Design improved layout and color scheme	Design improved layout and color scheme		https://www.figma.com/file/W1wEcuqu8zYVwue...		Dylan de Heer
11	(XKE-9) Design personal feedback concept	Design personal feedback concept	Verborgen feedback enkel voor de host bestemd			Dylan de Heer
12	(XKE-11) Design karma punten concept	Design karma punten concept	- hoe kom je aan punten? - wat kan je met de punten? (extra billable hours?)...			Dylan de Heer
13	(XKE-24) Design wallet	Design wallet and				Dylan de Heer

30 records

Interfaces All changes saved

SCRUM Kanban New

SHARE HELP 6

Stories Epics Releases Team Tasks

VIEWS All Tasks 2 hidden fields Filter Group Sort Color Share view

Find a view

All Tasks Costs By Sprint/Story

TaskName Task Description Stories TaskType Status StartDate DueDate

TaskName	Task Description	Stories	TaskType	Status	StartDate	DueDate
1 (XKE-28)-1	Agreement from business partner	Sprint 00 (XKE-28) Create key scenarios for design	UXD	Done	24/1/2022	31/1/2022
2 (XKE-28)-2	Cloud vendor cost quotation	Sprint 00 (XKE-28) Create key scenarios for design	ENG	In progress	1/2/2022	10/1/2022
3 (XKE-1)-3	Begin Figma design	(XKE-1) Design new navigation	UXD	Todo	24/1/2022	31/1/2022

Task Description

TaskName Stories TaskType Status StartDate DueDate

Create... Grid Form Calendar Gallery Kanban Timeline Gantt

3 records

Tasks can involve UI/UX, technical, infrastructure, testing, legal, marketing, partnership development, etc.

Interfaces

SCRUM Kanban New

SHARE HELP 6

AUTOMATIONS APPS

Stories Epics Releases Team Tasks

VIEWS All Tasks 2 hidden fields Filter Group Sort Color Share view

Find a view

All Tasks Costs By Sprint/Story

Create... Grid Form Calendar Gallery Kanban Timeline Gantt

TaskName Team TaskSeq BillingRates PlanHours PlanCosts ActualHours ActualCosts

	TaskName	Team	TaskSeq	BillingRates	PlanHours	PlanCosts	ActualHours	ActualCosts
1	(XKE-28)-1	D-B Suen	1	\$300.00	8.0	\$2,400.00	10.0	\$3,000.00
2	(XKE-28)-2	G-bernard@cuhk.edu.hk	2	\$350.00	7.0	\$2,450.00	0.0	\$0.00
3	(XKE-1)-3	D-B Suen	3	\$300.00	10.0	\$3,000.00	0.0	\$0.00

Cost data can be combined with revenue data (e.g. number of subscription x number of paid members) to conduct ROI analysis.

Sum 6 Sum \$950.00 Sum 25.0 Sum \$7,850.00 Sum 10.0 Sum \$3,000.00

The Incredibles - Agile Product Management

Data

Automations

Interfaces



Help

Share



Tasks | Stories | Epics

Sprints ▾

Members

Meetings

Project Progress Report #1

Project Progress Report #2



Extensions

Views | Raw View | Hide fields | Filter | Group | Sort | Color | Share view



Find a view

Kanban

Raw View

	Sprint	Deadline	Status	Sprint#	Notes
1	01 Database Setup	11/3/2022	Done	Sprint 01	
2	02 Collect Content	25/3/2022	Done	Sprint 02	
3	03 Front-end Design	15/4/2022	Done	Sprint 03	
4	04 Validation	2/5/2022	Done	Sprint 04	
5	05 Analytics	2/5/2022	Done	Sprint 05	
6					
7					
8					
9					

Create...

Grid

Form

Calendar

Gallery

Kanban

Timeline Pro

Gantt Pro

New section Pro



Add...

9 records

<https://airtable.com/shryXWXf9cuP1iK1C>

The Incredibles - Agile Product Management

Data

Automations

Interfaces



Help

Share



Tasks

Stories

Epics

Sprints

Members

Meetings

Project Progress Report #1

Project Progress Report #2



Extensions

Views



Kanban



Stacked by Status

Customize cards



Filter



Sort



Color

Share view



Find a view

Raw

Group by sprint

Group by priority

Kanban

Todo

No records



In progress

No records



Done

data scraping for destinat...

choosing attractive pictures

selecting valuable destin...

DESCRIPTION

it is either worthy or based on
collaborations

planning routes

creating our own SQL dat...

DESCRIPTION

destinations and routes table

70 records



Create...

Grid



Form



Calendar



Gallery



Kanban



Timeline

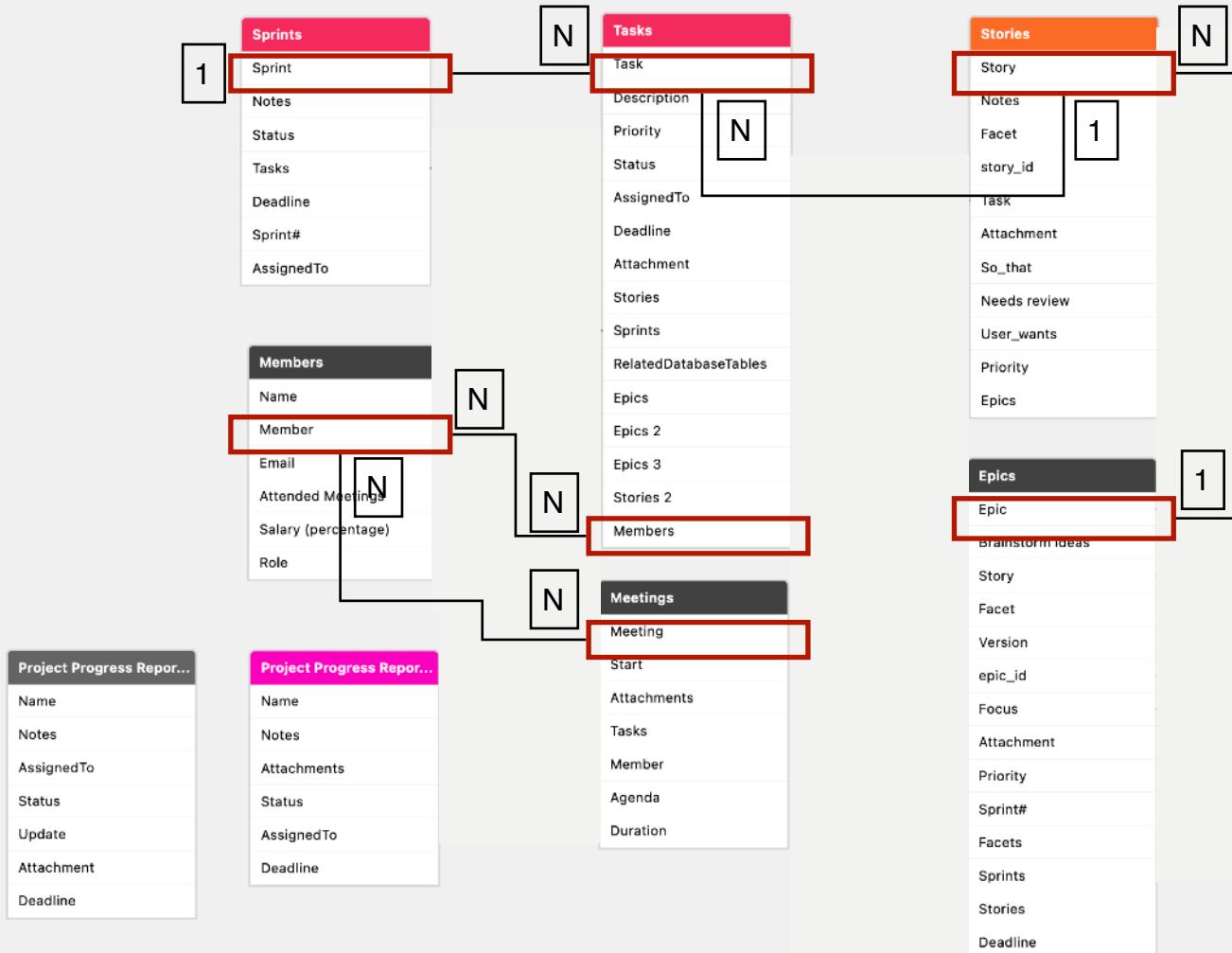


Gantt



New section





What is Airtable automation?

1. Trigger (similar in concept to an event listener)

- 1.1. When record matches conditions**
- 1.2. When a form is submitted**
- 1.3. When record created**
- 1.4. When record updated**
- 1.5. When record enter view**
- 1.6. At scheduled time**
- 1.7. When web hook received**
- 1.8. Triggered by externally integrated applications**

2. Action (similar in concept to an event handler)

- 2.1. Send email**
- 2.2. Create record**
- 2.3. Update record**
- 2.4. Find record**
- 2.5. Run script**
- 2.6. Action carried out by externally integrated applications**

Demonstration

**Reminder: Assignment #1 and #2
will be due on Feb 13th.**

Problem Set #3 (Due on Feb 27th)

- 1. Make your COM5961 final project into a PWA.**
- 2. Create an Airtable base of keeping count on number of registration and login or perform email confirmation.**
- 3. Use Flask REST API request to trigger Airtable automation (i.e. the registration and login will activate Airtable triggers to take action for creating or updating records or sending emails).**

Project Progress Report #1

(Due Mar 3rd - Friday)

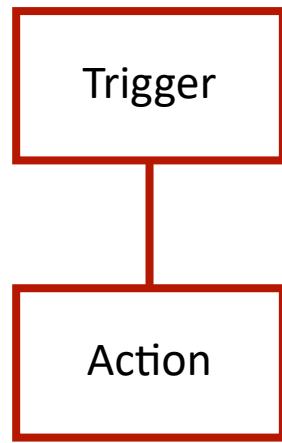
1. Conduct market/user research and usability study on your chosen project after discussion with Bernard on your proposal (Remember to schedule meeting).
2. Develop project story map and product backlog using the **Lean Method** (Business Model Canvas and Value Proposition Canvas).
3. Implement the result in Airtable using the SCRUM template with the backlog listed and 1st sprint scheduled (with clear task assignment).
4. Submit status report (minimum 5 pages) with findings. The appendix section of the report should include:
 - Usability test dashboard, usability test script and result (screen capture with audio recording)
 - Business model canvas and value proposition canvas (can be conducted online using Figma Jamboard) related to early adopter segment targeted.
 - Story map with each story card clearly specifying persona, feature (what - gain creator and pain reliever), benefit (why - gain and pain), and acceptance criteria.
5. The report findings should explain clearly the choice of persona segment targeted and how the product backlog is developed and the first sprint is prioritised (with OKR specified).
6. All project communication must be conducted through Airtable so I can be notified.

Assessment Scheme

Assessment Scheme	Description	Weight
A) Two project progress reports submitted by each group (minimum 5 pages + appendix)	Students will participate in user research and agile software development with project progress documented in SCRUM format.	20%
B) Final Group project: presentation and Report	Students organized into teams will present their final project in the form of a pitch deck (10 slides only) complemented with a MVP + written project progress report (with PRD and PDP) based on a real business problem (e.g. self-initiated Kickstarter-like project or business practicum project). Application of qualitative (usability study) and quantitative (A/B test and web analytic) methods to track and analyse user adoption and conversion, using the results as the basis for UX/Business Model validation and impact assessment.	40%
C) Group Project Management	Maintenance of project site with online documentation of project process, tasks, key milestones and deliverables.	10%
D) Group member assessment	Group participation points as assessed by other team members.	10%
E) 5 coding problem sets	Online video and coding problem sets.	20%

Workflow Automation without Coding

**If this
happens**
then
do this.



**The conditions such as change of
a field status or a form submitted
for triggering an action.**

**Action such as updating
a field or sending out an
email notification.**

To Do List Data Automations

Tasks People Confidential Views Grid view Hide fields Find a view Grid view

Create... Grid Form Calendar Gallery Kanban Timeline Gantt New section

Click “Automation” button to begin setting up automation workflow.

Total Income	Over 25000
\$5,500.00	Over
\$4,500.00	Over
\$3,000.00	-

Sum \$13,000.00 Sum 76000

Help Notifications Share S

Automations List



Let Airtable do the work for you by automating your most common tasks. [Learn More](#)

Send an email

When Status is Done, send an email

Send a Slack message

When Status is Done, send a Slack message

Update a record

When Status is Done, set Status to Todo

Send a weekly digest

At 10:00 pm Monday, email records where Status is Done

Generate a weekly digest in Google ... Pro

Automation 1*

TRIGGER

+ Add trigger

Suggested triggers for you:



When a record matches conditions



When a form is submitted



When a record is created



When a record is updated



At a scheduled time



When a record enters a view

See all...

Pick a trigger out of the list of options. In this example, “when a record matches conditions” is picked.

To Do List Data Automations Interfaces

Automation 1 OFF Automation 1 OFF Run History Test Automation Properties

Automations List

Automation 1 No description

TRIGGER When a record matches conditions

ACTIONS Run actions This group is empty--no actions will run when triggered + Add action

CONDITIONAL ACTIONS +

CREATE... Create automation Create section Suggested for you

Trigger type When record matches conditions

This trigger will fire when a record in the chosen table starts matching the provided conditions. This does not include records that already match the conditions. [Learn more](#)

CONFIGURATION * Table Select a table Find a table Tasks People Confidentials

Define the table in which the record that matches the conditions can be found.

The screenshot shows a software interface for managing automations. On the left, there's a sidebar with options like 'Create...', 'Create automation', 'Create section', and 'Suggested for you'. The main area displays an automation named 'Automation 1' which is currently off. It has sections for 'TRIGGER' (highlighted with a red box) and 'ACTIONS'. The 'TRIGGER' section contains the text 'When a record matches conditions'. The 'ACTIONS' section says 'Run actions' and 'This group is empty--no actions will run when triggered', with a '+ Add action' button. Below these are 'CONDITIONAL ACTIONS' and a '+' button. On the right, there's a 'Properties' panel with 'TRIGGER DETAILS' and 'CONFIGURATION' sections. The 'CONFIGURATION' section has a dropdown for 'Table' with options like 'Select a table', 'Find a table', 'Tasks', 'People', and 'Confidential'. A large red box highlights the 'Table' dropdown. A text overlay on the right side of the properties panel reads: 'Define the table in which the record that matches the conditions can be found.'

To Do List Data Automations Interfaces

All changes saved Help Notifications Share

Automations List

Automation 1 No description OFF

TRIGGER When a record matches conditions

ACTIONS

CONDITIONAL ACTIONS

Identify the field within the table that matches the condition(s) specified. In this example, the “Completed” field is used for testing the condition.

Properties

Trigger type When record matches conditions

This trigger will fire when a record in the chosen table starts matching the provided conditions. This does not include records that already match the conditions. [Learn more](#)

Configuration

* Table Tasks

* Conditions

When Name contains Find a field
+ Add cond A condition A Name
Completed

TEST STEP

Test this trig from th Date
table should Priority
conditions. People involved
Comments

Choose record

Create...
Create automation
Create section
Suggested for you

To Do List Data Automations Interfaces

All changes saved Help Notifications Share

Automations List

Automation 1 OFF

TRIGGER

When a record matches conditions
If Completed is checked

ACTIONS

Run actions
This group is empty—no actions will run when triggered
+ Add action

CONDITIONAL ACTIONS

The matching condition is when the “Completed” field is checked.

Properties

Trigger type When record matches conditions

This trigger will fire when a record in the chosen table starts matching the provided conditions. This does not include records that already match the conditions. [Learn more](#)

Configuration

* Table Tasks

* Conditions When Completed is

+ Add condition

Test Step

Test this trigger to confirm its configuration is correct. The data from this test can be used in later steps. The selected table should have records that match the configured conditions.

Use suggested record Choose record

Create...
Create automation
Create section
Suggested for you

To Do List Data Automations Interfaces

Automation 1 OFF

Review test results

When a record matches conditions
If Completed is checked

Run actions
This group is empty—no actions will run when triggered
+ Add action

Test the condition with existing records.

Properties

Tasks

Conditions When Completed is checked

+ Add condition

TEST STEP

Test this trigger to confirm its configuration is correct. The data from this test can be used in later steps. The selected table should have records that match the configured conditions.

Use suggested record Choose record

RESULTS

Step successful

Step run a few seconds ago.

Input

Table Tasks

Conditions

Found 1 record:

Airtable Record Urgent task 1

Airtable record ID recCGsZIPeJrD81lr

Field values

Airtable record URL https://airtable.com/appZ...

The screenshot shows the Airtable Automations interface. On the left, there's a sidebar with options like 'Create...', 'Create automation', 'Create section', and 'Suggested for you'. The main area displays 'Automation 1' which is currently off. It has a 'TRIGGER' section with a checkmark next to 'Review test results' and a 'When a record matches conditions' step where 'Completed' is checked. Below that is an 'ACTIONS' section with a 'Run actions' step that is currently empty. A red box highlights this 'Run actions' section. To the right is a 'Properties' panel with tabs for 'Tasks', 'Conditions' (which shows 'Completed' is checked), 'TEST STEP' (with a note about testing the trigger), and 'RESULTS' (showing a successful step run). The 'RESULTS' section also lists the found record: an Airtable record for 'Urgent task 1' with ID 'recCGsZIPeJrD81lr'.

The screenshot shows a user interface for creating automations. On the left, there's a sidebar with options like 'Create...', 'Create automation', 'Create section', and 'Suggested for you'. The main area has tabs for 'Data', 'Automations' (which is selected), and 'Interfaces'. A top navigation bar includes 'Help', 'Notifications', 'Share', and a search icon.

The central workspace displays an automation named 'Automation 1' (status: OFF). It shows a 'TRIGGER' section with 'When a record matches conditions' and 'If Completed is checked'. Below it is an 'ACTIONS' section under 'Run actions' with a note: 'This group is empty--no actions will run when triggered'. A '+ Add action' button is available. A list of actions is shown, with 'Update record' highlighted by a red rectangle. Other actions include 'Send email', 'Create record', 'Find records', and 'Run script'. Below this is an 'INTEGRATIONS' section listing 'Slack', 'Microsoft Teams', 'Gmail', 'Google Calendar', 'Google Forms', and 'Google Sheets'.

GROUP LABELS

Add a custom name or description for this group of actions that will always run when triggered.

Name
Enter a name

Description
Enter a description

Specify the action that responds to the trigger. In this example, a record from a chosen table will be updated.

To Do List Data Automations Interfaces

Automation 1 OFF Automation 1 Run History Test Automation

Automations List

Automation 1 When a record matches conditions, update a re... OFF

TRIGGER When a record matches conditions If Completed is checked

ACTIONS Update record Test step

CONDITIONAL ACTIONS

Update record

Update record Priority

+ Add action

The “Priority” field within the “Tasks” table will be changed to “Done” when “Completed” status is checked.

Properties

LABELS

Description Enter a description

CONFIGURATION Action will run... Always

Table Tasks Record ID D of the record to update. To update a record from a previous step, use the + menu to choose the step and its Record ID.

Airtable record ID +

* Fields Priority Done + Choose field

TEST STEP Test this action to confirm its configuration is correct. The data from this test can be used in later steps.

Generate a preview Run as configured

Generate a preview

Create... Create automation Create section Suggested for you

To Do List Data Automations Interfaces

Automation 1 When a record matches conditions, update a re... OFF

Run History Test Automation

Properties

LABELS

Description Enter a description

CONFIGURATION

Action will run... Always

- * Table Tasks
- * Record ID Airtable record ID +
- * Fields Priority Done + Choose field

TEST STEP

Test this action to confirm its configuration is correct. The data from this test can be used in later steps.

Generate a preview Run as configured

Generate a preview

RESULTS

Automations List

TRIGGER When a record matches conditions

Record updated PREVIEW 10/28/2022 at 11:20 PM

PEOPLE INVOLVED Brad

PRIORITY Done Urgent

A NAME Urgent task 1

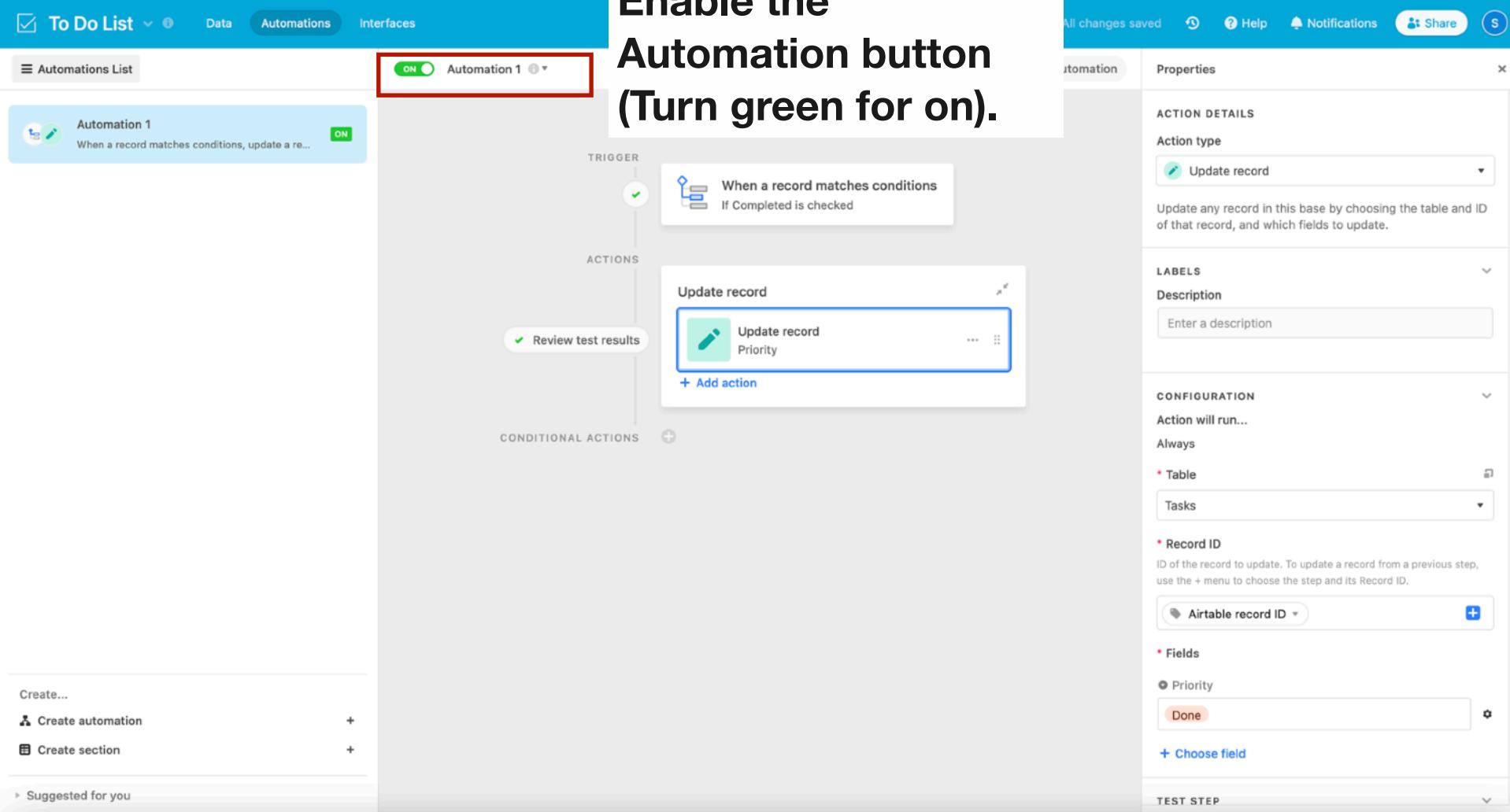
COMPLETED ✓

Create... Create automation Create section + +

Suggested for you

The screenshot shows the Zapier interface for building automations. On the left, there's a sidebar with options like 'Create...', 'Create automation', 'Create section', and 'Suggested for you'. The main area is focused on 'Automation 1', which triggers 'When a record matches conditions'. A preview window is open, showing a record update with specific details: 'Record updated' on '10/28/2022 at 11:20 PM', 'PEOPLE INVOLVED' (Brad), 'PRIORITY' (Done, Urgent), 'A NAME' (Urgent task 1), and 'COMPLETED' (✓). To the right of the preview, the 'Properties' panel is visible, containing sections for 'LABELS', 'Description' (with a placeholder 'Enter a description'), 'CONFIGURATION' (set to 'Always'), and 'TEST STEP' (with a note about confirming configuration). At the bottom right, there are buttons for 'Generate a preview' and 'Run as configured', with the 'Generate a preview' button being highlighted by a red box.

Enable the Automation button (Turn green for on).



The screenshot shows the Airtable Automations interface. At the top, there's a navigation bar with tabs: To Do List, Data, Automations (which is selected and highlighted in blue), and Interfaces. Below the navigation bar, there's a header for "Automations List". A red box highlights the "ON" button for "Automation 1".

The main area displays the automation flow:

- Trigger:** When a record matches conditions (If Completed is checked)
- ACTIONS:** Update record (Priority)
- Conditional Actions:** Review test results

On the right side, there's a detailed view of the "Update record" action:

- Action type:** Update record
- Description:** Enter a description
- Configuration:** Action will run... Always, Table: Tasks, Record ID: Airtable record ID, Fields: Priority (set to Done)
- Test Step:** TEST STEP

At the bottom left, there are buttons for Create..., Create automation, Create section, and Suggested for you.

To Do List Data Automations Interfaces

Tasks People Confidentials + Add or import

Views Priority Rated Hide fields Filter Grouped by 2 fields Sort Color Share view

Find a view

Priority Rated ✓

By date

Completed Tasks

Kanban by Priority

Create... Grid Form Calendar Gallery Kanban Timeline Pro Gantt Pro New section Pro

+ Add... 13 records

Name	Completed	Date	Prior...	People involved	Comments	Attachments
9 Low priority task 1			Low			
10 Low priority task 2			Low			
11 Low priority task 3			Low			
+						

PRIORITY

On Hold Count 1

COMPLETED

1

12 On Hold task 1

+

Name	Completed	Date	Prior...	People involved	Comments	Attachments
12 On Hold task 1			On Hold			
+						

PRIORITY

Done Count 1

COMPLETED

1

13 Urgent task 1

+

Name	Completed	Date	Prior...	People involved	Comments	Attachments
13 Urgent task 1	✓		Done	Brad		
+						

The result as shown in the grid view.

This image shows a screenshot of a project management application's interface. At the top, there's a navigation bar with 'To Do List', 'Data', 'Automations', and 'Interfaces'. Below that is a secondary navigation bar with 'Tasks', 'People', 'Confidential', 'Add or import', and various view-related buttons like 'Priority Rated', 'Hide fields', 'Filter', 'Grouped by 2 fields', 'Sort', 'Color', 'Share view', and 'Extensions'. On the left, there's a sidebar with 'Create...' and several icons for different views: Grid, Form, Calendar, Gallery, Kanban, Timeline Pro, Gantt Pro, and New section Pro. The main area displays a grid view of tasks. The columns are 'Name', 'Completed', 'Date', 'Prior...', 'People involved', 'Comments', and 'Attachments'. There are three sections for priority: 'Low priority' (3 tasks), 'On Hold' (1 task), and 'Done' (1 task). The 'Done' task, which is 'Urgent task 1', is highlighted with a red border. A large text box at the bottom right contains the text 'The result as shown in the grid view.'

To Do List Data Automations Interfaces

All changes saved ⚡ Help Notifications Share

Automations List

ON Automation 1 ON

Run History Test Automation Properties

TRIGGER DETAILS

Trigger type When record matches conditions

This trigger will fire when a record in the chosen table starts matching the provided conditions. This does not include records that already match the conditions. [Learn more](#)

CONFIGURATION

* Table Tasks

* Conditions

When Completed is checked

+ Add condition

TEST STEP

Test this trigger to confirm its configuration is correct. The data from this test can be used in later steps. The selected table should have records that match the configured conditions.

Use suggested record Choose record

RESULTS

Step successful Step run an hour ago.

Input Table Tasks

The screenshot shows a low-code automation builder interface. At the top, there's a navigation bar with 'To Do List', 'Data', 'Automations' (which is the active tab), and 'Interfaces'. On the right, there are buttons for 'All changes saved', 'Help', 'Notifications', and 'Share'. Below the navigation is a toolbar with a 'Run History' button, a 'Test Automation' button, and a 'Properties' panel. The main workspace is titled 'Automations List' and contains a single automation named 'Automation 1'. This automation has a green 'ON' switch. It consists of a trigger and several actions. The trigger is 'When a record matches conditions' (with a condition 'If Completed is checked'). The actions include an 'Update record' step (Priority) and a placeholder for 'Conditional actions' (with a button '+ Add action'). A large callout box in the center-right of the workspace area contains the text: 'Conditional actions allow separate actions taken in response to different conditions.' The 'Properties' panel on the right provides detailed configuration for the trigger, including the table and conditions, and includes a 'TEST STEP' section for testing the trigger.

Conditional actions allow separate actions taken in response to different conditions.

To Do List Data Automations Interfaces

Automation 1 When a record matches conditions, update a re... OFF

TRIGGER When a record matches conditions If Completed is checked

ACTIONS Update record Update record Priority + Add action

CONDITIONAL ACTIONS If Name contains Urgent Send an email using Gmail Gmail: Send email + Add action

Properties CONFIGURATION This group of actions will run if the conditions defined below are met at the time the automation is triggered.

Conditions If Name contains Urgent Edit conditions

Description Enter a description

TEST STEP Test the conditions of this group of conditional actions to see if they match the data from earlier steps. Test conditions

RESULTS The conditions of this group of conditional actions or its used inputs have been updated since it was last tested. Results may be out of date. [Test the conditions again](#) for the most accurate results.

Step successful Step run 20 minutes ago. Group of conditional actions chosen.

In this example, if the task name contains “urgent”, email will send to a specific email recipient.

The screenshot shows a user interface for creating and managing automations. On the left, there's a sidebar with options like 'Create...', 'Create automation', 'Create section', and 'Suggested for you'. The main area displays 'Automation 1' which triggers when a record matches certain conditions (e.g., 'Completed is checked'). It includes an 'Update record' step (Priority) and a conditional step for 'If Name contains Urgent'. This conditional step leads to an 'Email' action using Gmail. The right side of the screen shows the 'Properties' panel with sections for 'Configuration' (conditions), 'Description', 'Test Step' (with a 'Test conditions' button), and 'Results' (status message). A large callout box in the bottom right provides a summary of how the automation works: if a task name contains 'urgent', an email will be sent to a specific recipient.

To Do List Data Automations Interfaces

Automation 1 When a record matches conditions, update a re... OFF Automation 1 Run History Test Automation Properties

TRIGGER When a record matches conditions If Completed is checked

ACTIONS Update record Update record Priority + Add action

CONDITIONAL ACTIONS If Name contains Urgent Send an email using Gmail Gmail: Send email + Add action

Review test results

Action type Send email

LABELS

CONFIGURATION Action will run... If Name contains Urgent

* Gmail account Gmail account

* To Separate multiple emails with commas bernard@cuhk.edu.hk

Show more options >

* Subject Name

* Message

Urgent task completed. Please review.

```
graph TD; Trigger[When a record matches conditions] --> Action1[Update record]; Action1 --> Condition[If Name contains Urgent]; Condition --> Action2[Gmail: Send email]
```

In this example, if the task name contains “urgent”, email will send to a specific email recipient.

To Do List Data Automations Interfaces

Automations List

OFF Automation 1

Run History Test Automation Properties

Automation 1 When a record matches conditions, update a re... OFF

TRIGGER When a record matches conditions If Completed is checked

ACTIONS Update record

Update record Priority + Add action

CONDITIONAL ACTIONS If Name contains Urgent

Send an email using Gmail

Gmail: Send email + Add action

Review test results

bernard@cuhk.edu.hk

Show more options >

* Subject A Name +

* Message Use markdown or HTML for rich text formatting: **bold**, *italics*, # Headings, * Bullets,
 for line breaks, and more

Urgent task completed. Please review.

Attachments + Add

TEST STEP

Test this action to confirm its configuration is correct. The data from this test can be used in later steps.

Generate a preview Run as configured

Generate a preview

Click the “Generate a preview” button to see what the result will show.

```
graph TD; Trigger[When a record matches conditions] --> Action1[Update record]; Action1 --> Condition[If Name contains Urgent]; Condition --> Action2[Gmail: Send email]
```

To Do List Data Automations Interfaces

Automation 1 OFF Automation 1 Run History Test Automation Properties

Automation 1 When a record matches conditions, update a re... Show more options >

TRIGGER When a record matches conditions If Completed is checked

Email sent PREVIEW 10/29/2022 at 12:30 AM To bernard@cuhk.edu.hk Subject Urgent task 1 Urgent task completed. Please review.

+ Add action

Attachments + Add

TEST STEP Test this action to confirm its configuration is correct. The data from this test can be used in later steps.

Generate a preview Run as configured Generate a preview

RESULTS

This screenshot shows a workflow automation interface. At the top, there are tabs for 'To Do List', 'Data', 'Automations' (which is selected), and 'Interfaces'. Below the tabs, a sidebar on the left contains buttons for 'Create...', 'Create automation', 'Create section', and 'Suggested for you'. The main workspace displays an automation named 'Automation 1' which is currently off. The trigger for this automation is 'When a record matches conditions If Completed is checked'. A preview window shows an email sent to 'bernard@cuhk.edu.hk' with the subject 'Urgent task 1' and the message 'Urgent task completed. Please review.' A red box highlights the message body. On the right side, there are sections for 'Properties' (with fields for 'Subject' and 'Message'), 'Attachments' (with a '+ Add' button), 'TEST STEP' (with a note to test the configuration), and 'RESULTS' (with buttons for 'Generate a preview' and 'Run as configured').

Enable the Automation button (Turn green for on).

The screenshot shows a user interface for managing automations. At the top, there's a navigation bar with tabs for "To Do List", "Data", "Automations" (which is selected and highlighted in blue), and "Interfaces". Below the navigation, there's a "Automations List" section with a single item named "Automation 1". A red box highlights the "ON/OFF" switch for "Automation 1", which is currently set to "ON".

The main workspace displays the configuration of "Automation 1". It starts with a "TRIGGER" section: "When a record matches conditions" (with a sub-condition "If Completed is checked"). This leads to the "ACTIONS" section, which contains an "Update record" step (Priority) and a "+ Add action" button. Below that is a "CONDITIONAL ACTIONS" section: "If Name contains Urgent" followed by a "Send an email using Gmail" step (using the "Gmail: Send email" action). There's also a "Review test results" button.

On the right side, there's a "Properties" panel for the "Automation 1" configuration. It includes fields for "Subject" (set to "Name") and "Message" (containing the text "Urgent task completed. Please review."). There are buttons for "Generate a preview" and "Run as configured".

Thank you for your time!