



**Fred
LI
Portfolio**

LXF
DESIGN
PERSIST.



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FRED LI



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LXF Design.
李晓凡设计.

<http://lxfdesign.oschina.io>



CONTENT

1. UX DESIGN

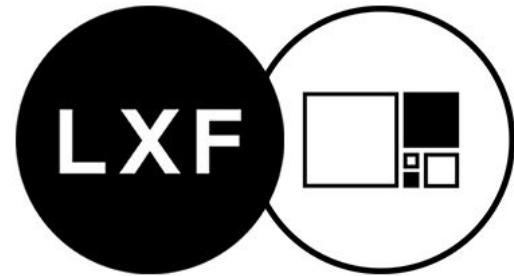
PROJECT 1 - IBM CLOUD AUTOMATION MANAGER

PROJECT 2 - TWIST. SUCCULENT CARE APP

2. VISUAL DESIGN

3. INDUSTRIAL DESIGN





UX DESIGN

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<http://lxfdesign.oschina.io/ux-design.html>



UX DESIGN

PROJECT 1

UX Design of IBM Cloud Automation Manager



The screenshot shows the IBM Bluemix Application Services Cloud Automation Manager interface. At the top, there are navigation links for Docs, Contact, and 24 Notifications. The main title is "Cloud Automation Manager". Below it, the page title is "MEAN for FA Dev". There are three tabs: Overview (selected), Resources, and Logs.

Virtual Machine (2)

NAME	STATUS
VM_1	Running
VM_2	Running

Hostname: vm4.example.com
IP Address (private): 192.177.3.2
IP Address (public): 192.177.4.3

VCPU: 2 / 8MHz; Occupied 1,024MHz (92%)

Volumes (2)

NAME	STATUS
Vol_1	Running
Vol_2	Running

Deployed Instances

NAME	STATUS	SERV
MEAN for FA Dev	Running	aws
VM_1	Running	AWS
VM_2	Running	Cluster

Memory: 2048 MB (54%)
Total 2,048MB; Occupied 1,084MB

Other listed instances include MEAN for FAPro, LAMP for FA2, Strongloop 3, DB2-MKT, DB2-MKT2, DB2-MKT3, LAMP for Test, Strongloop-A, DB2_feafe, MySQL_earw, DB2_FASystem, DB2_FASystem2, and MySQL_test, with various statuses like In Progress, Failed, or Running.

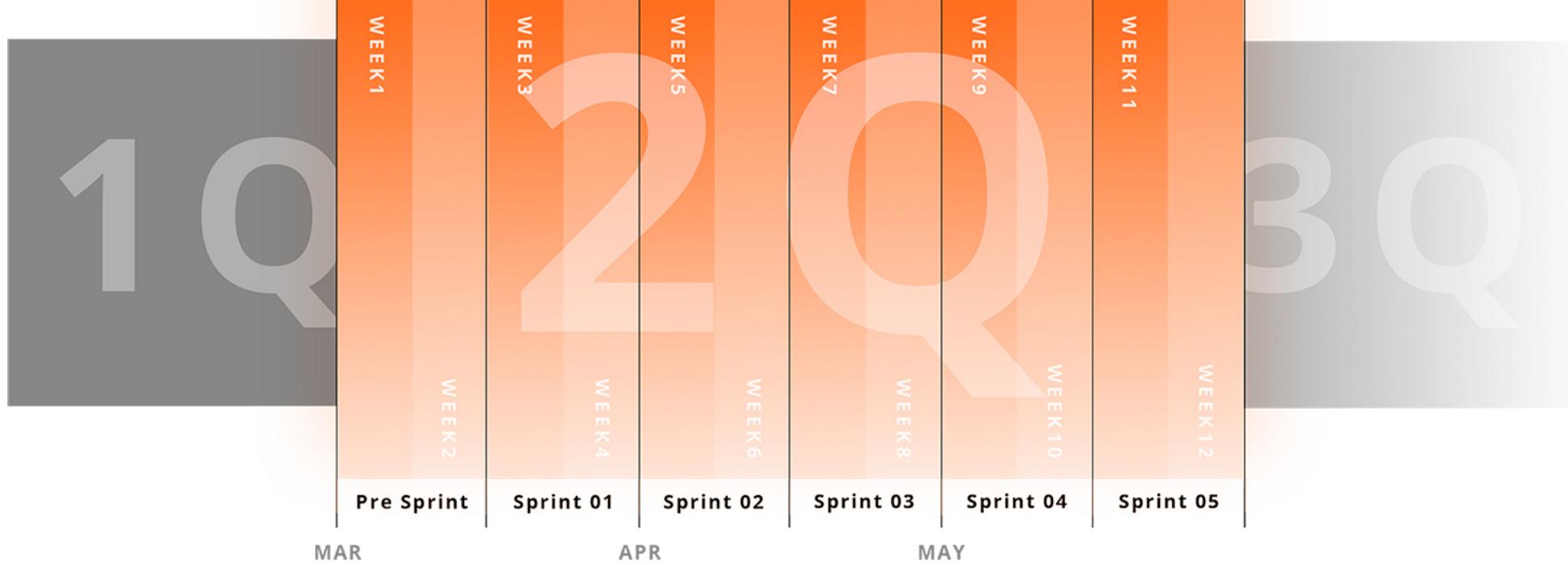


ABOUT



IBM Cloud
Automation Manager

IBM Cloud Automation Manager is a seamless end-to-end experience that allows IT operations to deploy, automate and manage **multi-cloud environments**, while providing easy access for developers to build and create applications within company policy and security.



HOW WE WORKED TOGETHER

Actually, I IBM Cloud Automation Manager is not my job responsibilities before, because the duration of this program is very short, So my manager asked me to join this program to help them.

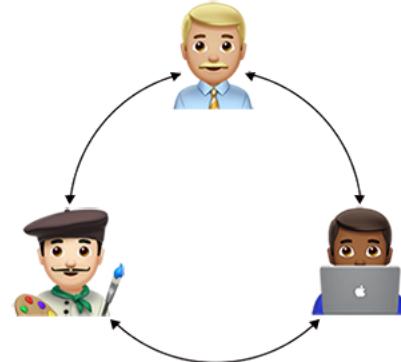
When I joined this program, It was in process of **2Q phase**. We have used Design Sprint way to manage our work schedule. We have planed to **finish the 2Q Release in 6 sprints**, i.e., 12 weeks.



Challenge of This Program



1.Because the tight schedule and the **Agile Development Working Mode**. Almost **EVERY DAY**, we need to **host a meet with our product manager and developers**. Our product manager is in Italy and our developers in India. Because of the distance and time difference, Daily meeting is our only chance to Communicate with each other. So that, we have to take this opportunity to show our understanding about this program.



2.In the program, the product planning and design flow were proceed at the same time. So that, our production proposed **new demands almost every day**. What's worse, they also **changed the old demands almost every day**. We still need to cooperate with them and realize their demand in the wireframe and i almost **delivered a totally new design every two days**.



3.Because i didn't follow this program in the beginning, and they already finished the 1Q release. Their were a lot of previous works i didn't familiar. What's more, i need to understand a lot of IT knowledge to support my design. I have to **learn these things in a very quickly while doing my design**.

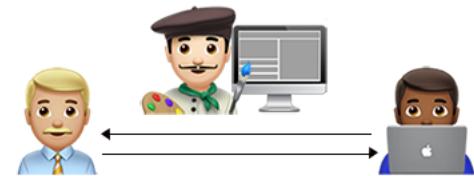




Learned from this program



1. After this program, I have a **deeper understanding of Agile Development working mode**. I know that, product manager offer change their demands doesn' t mean they didn' t value your design works. The facts are just the opposite, **designer like a bridge help product manager and developers communicate with each other in a better way**. Designer realize these demand in the wireframe, in the visual way, can help product manager and developers have a better understanding of these needs and the product. Sometimes, they didn' t aware of the mistake of demands they proposed.



2. Now, I can operate Sketch in **A Shocking Speed**. 😎

3. Most important, my design has win the approval of the product manager and develop. And the **CAM will come online in August!** 🎉



2 PERSONA

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In this program, we have three different personas.

Sandy

Carl

George

They are working at JADE Bank and they are the primary users of CAM. They will use CAM to do their daily jobs or cooperate with each other.

Persona Card

Sandy

IT Operations



Overview

Sandy works at JADE Bank and is responsible for working with George (the consumer/app owner) and Carl (the content contributor) to create and publish the services/content that George needs.

Persona Card

Carl

Content Contributer



Overview

With his job at JADE Bank, Carl is responsible for helping assemble services by providing the content or “building blocks” for Sandy. Either by finding and customizing existing content or creating new content to meet his teams needs.

Persona Card

George

Consumer/App Owner



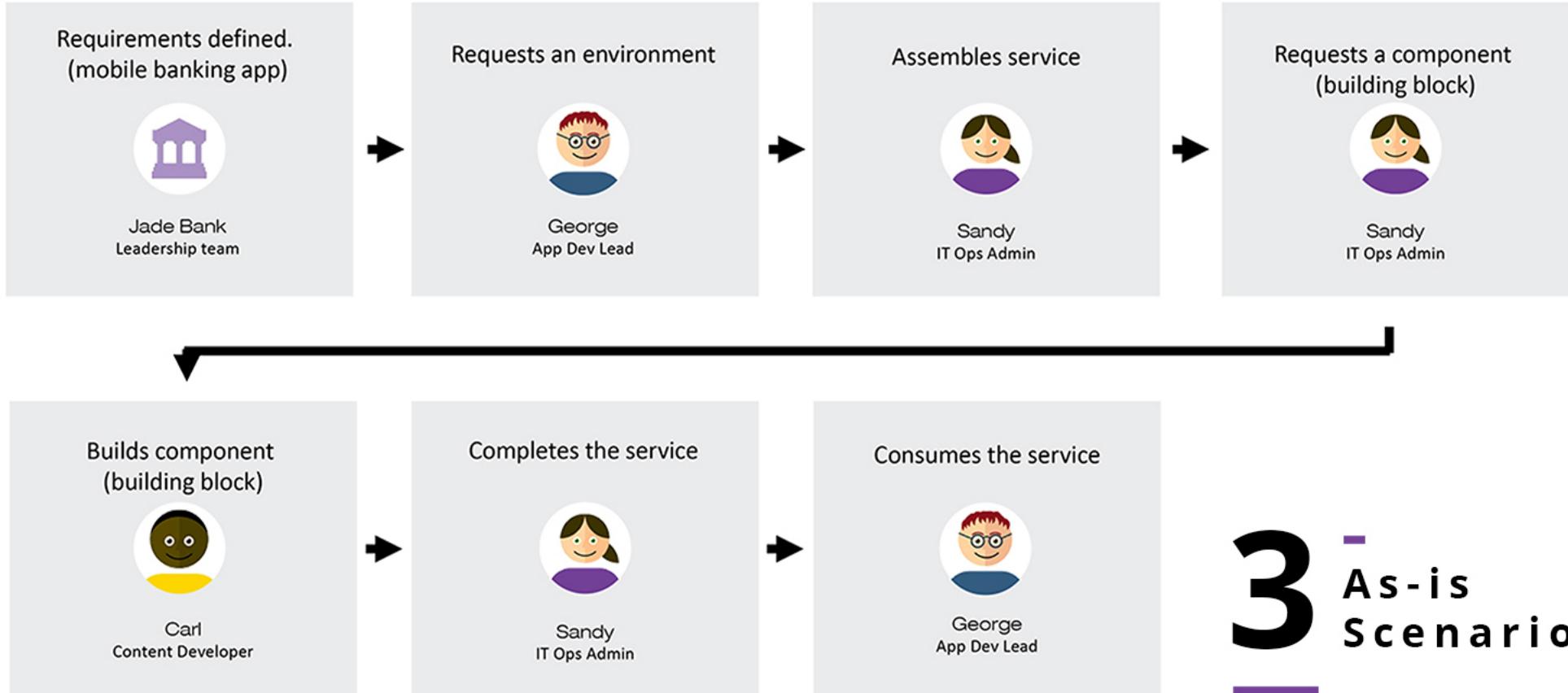
Overview

George also works at JADE Bank. He is tasked with developing a mobile banking app and needs to consume a secure, compliant, hybrid environment from Sandy.



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UX DESIGN



3 - As-is Scenario

A Window Into the World as It is Today.

AS-IS SCENARIO

We have simulated a very common scenario which happens a lot in sandy, carl and George's daily work.

Using this scenario, we can tell a convincing story to show without IBM Cloud Automation Manager **what problems will occur in our personas' daily work.**



The scenario is **JADE Bank wants to launch a new mobile banking app.** Snady, Carl and George are responsible for accomplishing tasks.



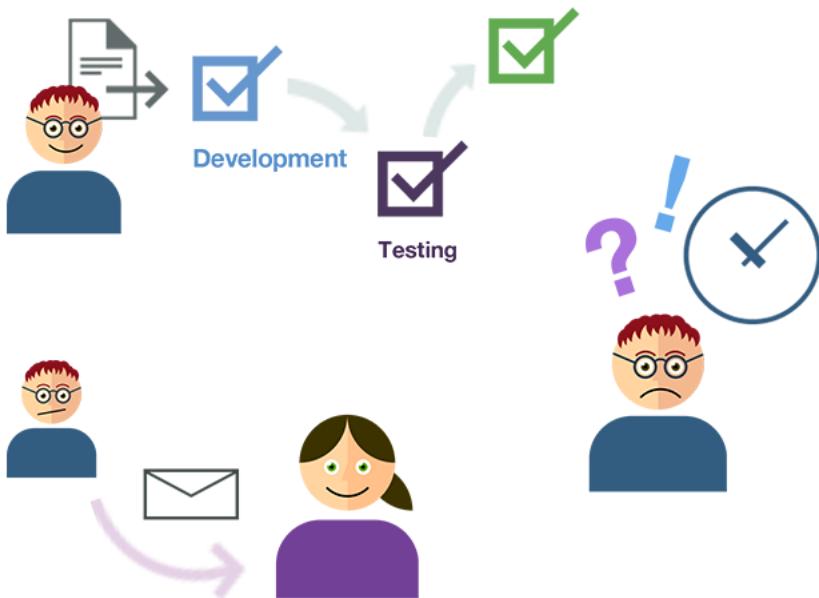
Their workflow will just like the diagram showed in last page.

And they will **have a lot of problems in the process** of finishing this task.



PROBLEM 1

AS-IS SCENARIO



George is leading the development for the mobile banking app. He needs to have environments ready for development, testing, and production phases.

George does not have permission to deploy the environment, so he reaches out to Sandy.

But sometimes, Sandy is too busy to meet all the requests she gets.

The deadline for George is very tight.

In the past he has gone out on his own and just purchased environments from AWS because it is a faster way to get started.

But this kind of action is against the rules of company. It will cause Gray IT, **not good for the company to charge back.**



UX DESIGN



PROBLEM 2

AS-IS SCENARIO



Sometime, the task for sandy is hard to finished, because the programming knowledge of sandy is very limited.

To deploy the environment, Sandy has access to a lot of powerful tools, but they don't always work well together. It takes Sandy **a lot of time and effort to manually configure the servers and software in different tools.**



UX DESIGN

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PROBLEM 3

AS-IS SCENARIO



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Sandy find the service she build lack of an infrastructure template. She ask carl for help building this component as fast as possible.

Sandy is working on assembling the service in a different tool than Carl uses. So they can't work on the component together.

Instead **they have to send a lot of emails back and forth to make new components.** This isn't fun or efficient for either of them but they have no choice.





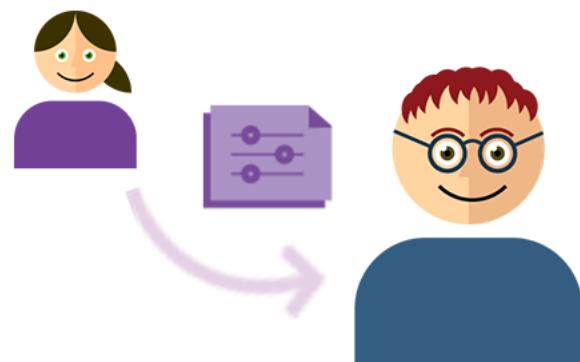
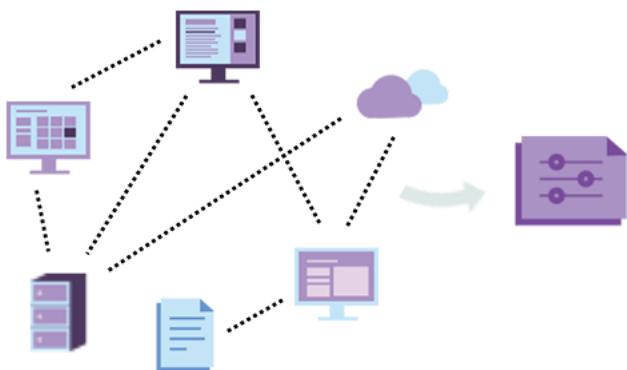
Finally

—
after a

Long ⏳ Complicated 😬 Rustrating
process

Sandy accomplish the service George asked for.

And George is now free to build the rest of the Mobile banking app for Jade Bank!





4. Painpoints

.....
Areas where we can do better !

①

Carl (the Contributor) has no place to go to find content to start his project from. This forces him to redo work and waste time. If he is lucky enough to find something to modify it requires a great amount of customization to make it work.

②

Sandy (the IT Ops Administrator) must use multiple services and technologies that are not made to work together to compose or manage an IT service. This requires companies like hers to create quick fixes or "band aid" solutions.

③

George (the IT Service Consumer) has to wait for everything from Sandy and her team or he goes rogue and acts as "shadow IT" because he has to meet his deadlines.



PAIN POINTS SUMMARY

①

Constantly moving targets due to shifting requirements and handoffs between teams. New constraints are discovered, new requirements are added or the existing ones change.

②

Manual approval requests take too long and block progress.

③

Multiple services and technologies are used that are not made to work together, requiring quick fixes or “band aid” solutions.

④

Cloud is increasing complexity.



5

Hills

Easy as 1, 2, 3 !

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UX DESIGN

Carl (the Contributor) can create highly reusable automation building blocks for multi-cloud services that are shared in a central repository and **used without customization.**

Sandy (the IT Ops Administrator) can compose and manage the lifecycle of multi-cloud IT services via a single user experience and **with limited programming skills for George to consume.**

George (the IT Service Consumer) can access IT services provided / curated by Sandy, use and manage them right away **without assistance from Sandy (the IT service provider).**

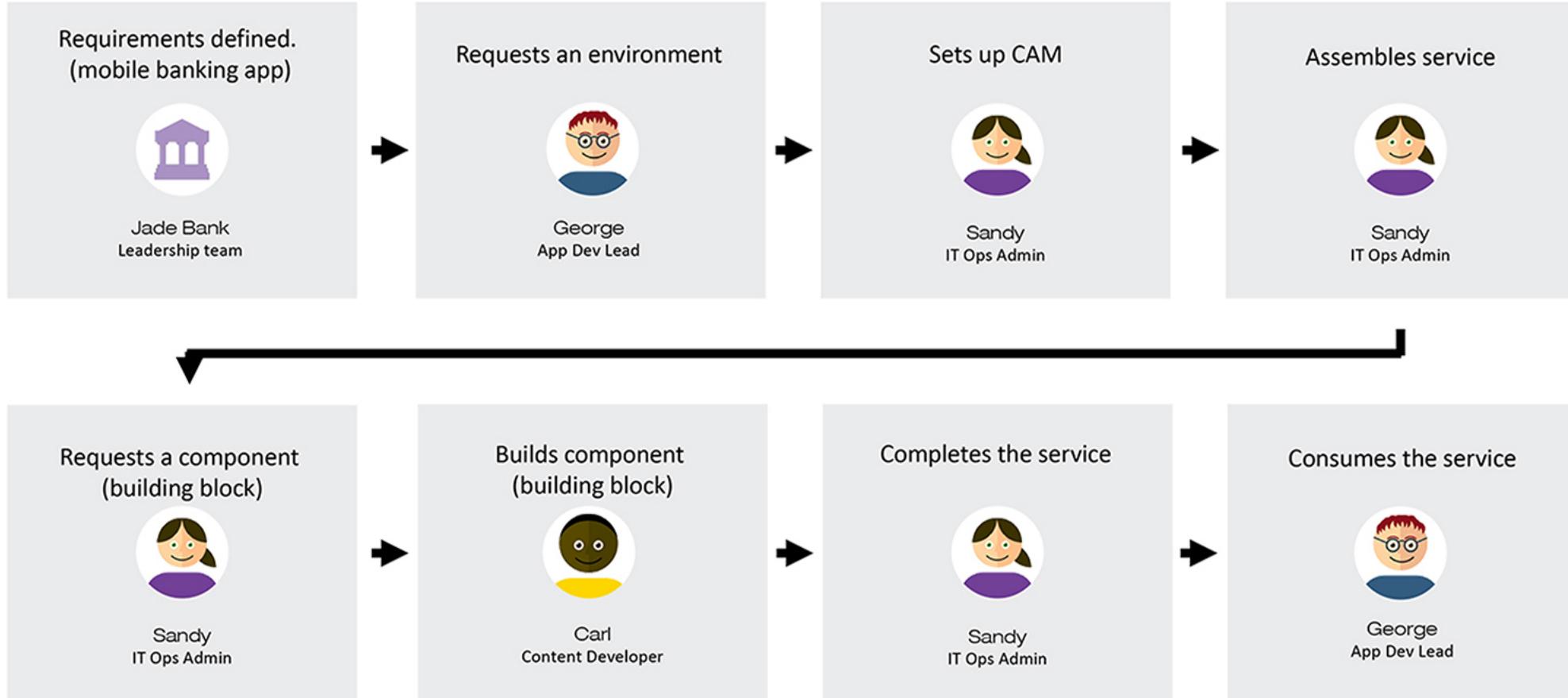


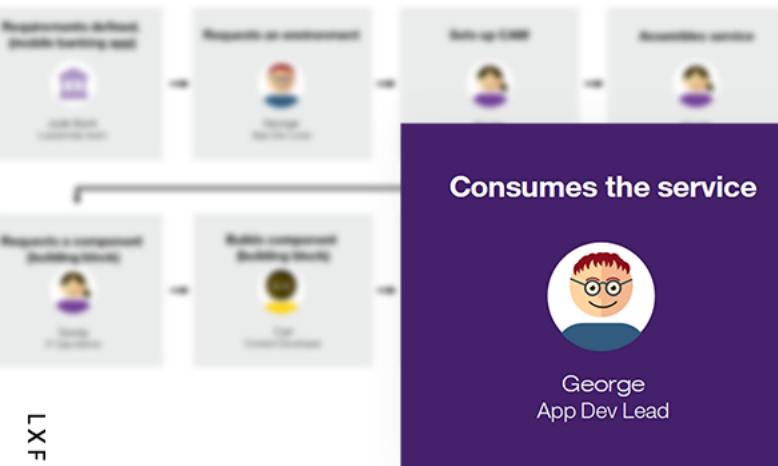
6. To-be Scenario

A window into a better future for our users.

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UX DESIGN





LXF DESIGN

UX DESIGN

Consumes the service



George
App Dev Lead

Epic 1

As George, I want to find and order offerings from the Catalog provided by Sandy.

Epic 2

As George, I want to access the service instances directly from the self service portal.

Epic 3

As George, I want to see the relationship between ordered items and their underlying resources (vm, disks, software, etc) that constitute it.



I was in charge of the **last phase** of this To-be Scenario:

George consumes and manage services through the Portal Part of IBM Cloud Automation Manager.

To accomplish this phase, I need to achieve **Three Epics**.



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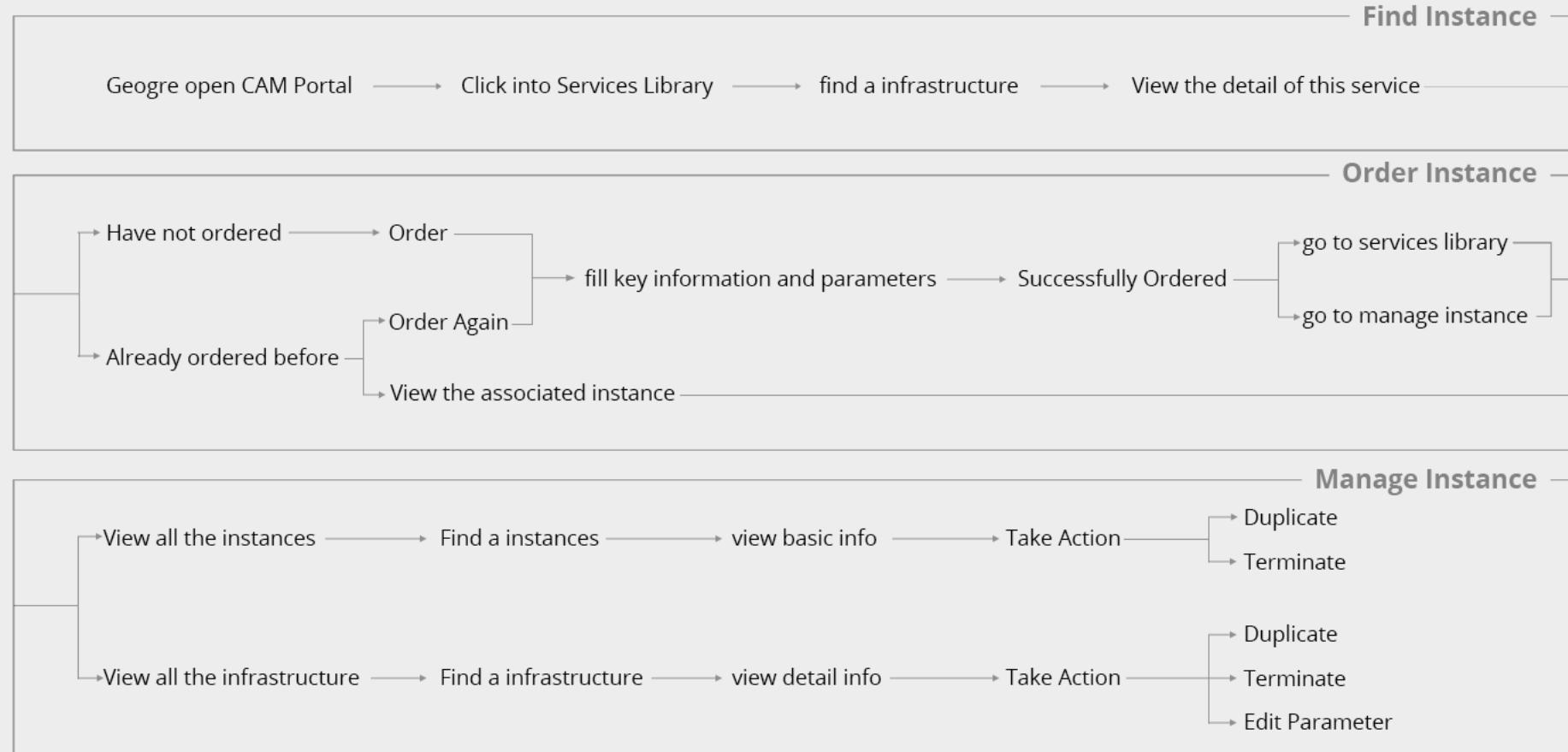
And to make sure George can fulfill all the task in his daily work, there are

20 Stories I Need to Cover in My Design

1. As George I can see a list of Items (Service Offerings) grouped by Category from Sandy's Catalog
2. As George I can see details of the Service Offering before I order it
3. As George, I can specify a name for my new instance during ordering
4. As George, I can select valid combinations of service parameters e.g. environment v size and click order
5. As George, when I click order I see a confirmation dialog that allows me to navigate to the instances view (scoped to the type of order I have submitted) or back to the catalog.
6. As Sandy/George I can invoke an action on an instance in my instance view
7. As Sandy I can see the template definition and parameters that were used to instantiate a template instance for an ordered instance
8. As Sandy I can see a list of all the resources that were created by a template for an order e.g. VM instances from MySQLServer template
9. As Sandy I can see a link to the ordered instance (template) for all resource instances that were created under the order
10. As Sandy/George I can see a list of all instances ordered
11. As Sandy/George I can see a count and filter the instances list by "Service Instances" and "Resources" by clicking on the LeftNav
12. As Sandy/George I can see a count and filter the instance list by ResourceType by clicking on the LeftNav
13. As Sandy/George I can see the state of all orders ("creating", "active", "terminating") in the instances view
14. As Sandy/George I can see the date/time each order was submitted
15. As Sandy/George I can expand any service Instance in my Instances view to see a list of the underlying resources
16. As Sandy I can see the consumer org for each instance
17. As Sandy/George I can configure which columns are visible in the Instance listings
18. As George I can see only the instances I have ordered for my org/space and other org/spaces cannot see mine
19. As Sandy/George I can filter my instances view by service parameter value e.g. Environment, Size
20. As Sandy/George I can switch what aspect of my instances I am interesting in seeing and the columns and graphs displayed will adjust.



7. WORK FOLW OF CMA PORTAL







9 DESIGN PRINCIPLE



1. Quality, cost and weight efficient designs



2. Follow the design language of IBM



3. Consider reusable code and develop cost



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10 wireframe.



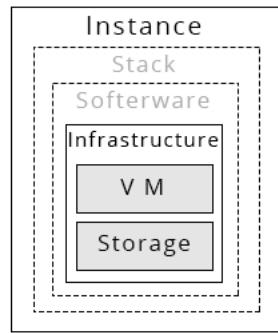
LXF Design.
李晓凡设计.



11 Explore the interaction Style

The difficult part about this project is the **Instance Page**. 😞 Because there are lot of information we need to show to our users. And these information has many dimensions, including **Status, Relationship and Actions**. One instance is composed of multiple parts, including **Stacks, Software and Infrastructures**. And every part has important parameters we need to show to our users. (*in Q2 release, stacks and software are not requested)

Structure of Instance



Key Information User Need to Know

Instance	Name, Status, Specification, Service Offering, Oreded Time, Action
Virtual Machine	Name, Status, Service Instance, Location, VCPU, Memory, Oreded Time, Action
Storage	Name, Status, Location, Attach To, Size, Oreded Time, Action

In order to organize all these information in a user friendly way, After a lot of **User Research** and **User Interview**, I have came out three different Interaction Style. 😊

- Topology
- Card Type
- Folding Type

TOPOLOGY



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IBM Cloud Automation Manager

George's Account | Finance : dev

← My Instances
MEAN for Finance Dev Status: ● Running

Overview Resources Monitoring Log

Resources

Service Templates Components Virtual machines Storages

Running (green dot)
Stopped (red dot)
Waiting for approval (yellow dot)

VM_4
Status: ● Running

Console: mean://vm4.example.com... →

Description: Here is the introduction of vm. Here is the introduction of vm. Here is the introduction of vm.

Configuration:

CPU	68%
Memory	5,034MB/8,092MB 54%

CPU Type: Intel Dual-core
CPU Rate: 2GHz
Memory Size: 8092MB

Location: Xxxxxx
Service Offering: Xxxxxxx

Information showed in the fist interface layer:

- All the components
- Relationship between them
- Status of them

Strong Points

1. Can clearly show the relationship between all the components.
2. Put the status of all the components in the first interface layer which is the most important information to the users.
3. When user click one component, the left part of this interface will show all the detail information of it. Hiding the secondary information in the first interface layer can make user focus on the key information.
4. Using the topology way, can make the usage of space maximum.

Weak Points

1. User need to do one more step to see the detail information of components, but some information they need to see in the fist layer.
2. Difficulty in programming. when the number of components increase, user need to drag the interface to see more. It's not a convenient way.

UX DESIGN



CARD TYPE

IBM Cloud Automation Manager

George's Account | Finance : dev

← My Instances
MEAN for Finance Dev Status: ● Running

Overview Resources Monitoring Log

Components Virtual machines Storages

Components	Virtual machines	Storages
Node.js_1 ● Running node://vm1.example.com...	VM_1 ● Running Cluster1 vm1.example.com... VCPU: 2 Memory: 8092MB	Vol_1 ● Running Cluster1 vm2.example.com... Size: 270GB/500GB
Express_1 ● Running expr://vm2.example.com...	VM_2 ● Running Cluster1 vm2.example.com... VCPU: 2 Memory: 8092MB	
MongoDB_1 ● Running mon://vm2.example.com...	VM_3 ● Running Cluster1 vm3.example.com... VCPU: 2 Memory: 8092MB	
Angularjs_1 ● Running angu://vm4.example.com...	VM_4 ● Running Cluster1 vm4.example.com... VCPU: 2 Memory: 8092MB	Vol_2 ● Running Cluster1 vm2.example.com... Size: 270GB/500GB

LXF Design 李晓凡设计.

Information showed in the fist interface layer:

- All the components
- Relationship between them
- Status of them
- Basic information of them

Strong Points

1. Can clearly show the relationship between all the components.
2. Put the status of all the components in the first interface layer which is the most important information to the users.
3. User can clearly see the basic information in the first time.

Weak Points

1. User need to do one more step to see the detail information of components, but some information they need to see in the fist layer.
2. Difficulty in programming.
3. It's not the best way to using the space. There will has a lot of blank space.



FOLDING TYPE

IBM Cloud Automation Manager

George

My Instances

By Relationship By Type

Service: All services Search

Environment: Development, Test Data Classification: Internal

Clean all filters

Finance Dev DBs

Service: DBaaS →

MySQL_1 ● Running mysql://vm1.example.com... →	Environment: Dev Data Classification: Dev Backup Policy: None	Disaster Recovery Policy: None Aaaaaaaa: Aaaaaa Bbbbb: Bbbb	Cccccccc: Cccccccc Ddddddd: Ddddddd View more
MySQL_3 ● Running mysql://vm1.example.com... →	Environment: Dev Data Classification: Dev Backup Policy: None	Disaster Recovery Policy: None Aaaaaaaa: Aaaaaa Bbbbb: Bbbb	Eeeeeeee: Eeeeeeee Fffff: Ffffff Cccccccc: Cccccccc Ddddddd: Ddddddd Eeeee: Eeeeeeee
VM_3 ● Running vm2.example.com →	VM_4 ● Running vm3.example.com →	VM_5 ● Stopped vm4.example.com →	...
Location: Cluster1 VCPU: 2 Memory: 8092MB	Location: Cluster2 VCPU: 2 Memory: 8092MB	Location: Cluster3 VCPU: 2 Memory: 8092MB	...
Vol_1 vm6.example.com →			...
Location: Cluster1/Stor Size: 500GB			

Finance Dev DBs 2

Service: DBaaS →

Information showed in the fist interface layer:

- Instance
- Status of instance
- Basic information of instance

Strong Points

1. Save space.
2. Only show the most importance information in the first interface layer. Reduce the interference information.
3. Use the folding way to show the inclusion relationship of instance and components, It's easy to programing and still very clear to the user.

Weak Points

1. The information showed in the first interface layer is limited.
2. User need more action to see all the information.





SUMMARIZE

After user test, we find that:

The **NO.1 importance information for the user is the ① Instance.** ① They want to know more about the instance at the first time. The **components belonged to this instances are not so important.**

What's more, the most importance function of this interface is **helping user to find out which part of their cloud development environment has problem.** And because of the inclusion relationship of instance and components, if one component has went wrong, the instance will stop. **So when user check and clear a fault, the ① first step should be finding which instnace has problem, then ② find out which component belonged to this instance has problem.**

So, we decide to chose the **FOLDING TYPE** to be our final choice, because using this interaction way, the most importance information will show in the first layer. And when user want to see more, they can expand the instance to dig down.

It's more fit the mental model of users.



LXF DESIGN



UX DESIGN

1. Navigate to Catalog

George navigates to the Service Library page to search for the offering that he wants for developing his application.



Cloud Automation Manager ▾

Service Library



Service Library

All Services >

Runtime

Database 1

App Server

Load Balance

Backup

Mixed

★ My Favourite My Ordered Services

Search Services

1

What's New 2

LAMP

Here is service description sample. Delivers 100x the performance of Apache Hadoop for certain workloads. Delivers 100x the performance of Apache Hadoop for certain workloads. Delivers 100x the performance of Apache Hadoop for certain workloads.



DB2

Here is service description sample. Delivers 100x the performance of Apache Hadoop for certain workloads. Delivers 100x the performance of Apache Hadoop for certain workloads. Delivers 100x the performance of Apache Hadoop for certain workloads.



Ordered

Recommended for You



MEAN Service

Here is service description sample. Delivers 100x the performance of Apache Hadoop for certain workloads. Delivers 100x the performance of Apache Hadoop for certain workloads. Delivers 100x the performance of Apache Hadoop for certain workloads.

Ordered 3

WAS Cluster

Here is service description sample. Delivers 100x the performance of Apache Hadoop for certain workloads. Delivers 100x the performance of Apache Hadoop for certain workloads. Delivers 100x the performance of Apache Hadoop for certain workloads.



Ordered



Liberty

Here is service description sample. Delivers 100x the performance of Apache Hadoop for certain workloads. Delivers 100x the performance of Apache Hadoop for certain workloads. Delivers 100x the performance of Apache Hadoop for certain workloads.



Service Name

Here is service description sample. Delivers 100x the performance of Apache Hadoop for certain workloads. Delivers 100x the performance of Apache Hadoop for certain workloads. Delivers 100x the performance of Apache Hadoop for certain workloads.



2. Find a Service

George go into the service library, he want to find the Service Sandy made for him. He click the **Card View Button** to view more service in one screen.

Design Thinking

- 1 The left navigation shows the different types of these services, and there is a search bar on the top, both can help user quickly locate the service they want.
- 2 The service list has two main section. most time, George need sandy to offer him a new service, so the "What's New" section can help George quickly find what he need.
- 3 There are a "Ordered" tag showing under the service intro, can help George know which service he already has without clicking into the service detail page. And a "Favorite" button in the right also can help George manage these service.



LXF DESIGN

IBM Bluemix Services

Cloud Automation Manager Service Library

George's Account | Finance : dev

Catalog Support Account

Service Library

Search Services

All Services >

Runtime Database App Server Load Balance Backup Mixed

What's New

LAMP DB2

MEAN Services WAS Cluster Liberty

Service Name WAS Cluster Service Name

Service Name Service Name Service Name

Service Name

UX DESIGN

The screenshot shows the Service Library interface. On the left, there's a sidebar with categories like Runtime, Database, App Server, etc., and filters for 'My Favourite' and 'My Ordered Services'. The main area has two sections: 'What's New' and 'Recommended for You'. Each section contains cards for various services like LAMP, DB2, MEAN Services, WAS Cluster, and Liberty. Each card includes a service icon, name, a short description, and a star rating. A large hand cursor is positioned over the 'MEAN Services' card in the 'Recommended for You' section.

2. Find a Service

George find a service he want, and click into the **Service Detail Page**.

DESIGN STORY

As George I can see a list of Items (Service Offerings) grouped by Category from Sandy's Catalog.



LXF DESIGN

IBM Bluemix Application Services

Cloud Automation Manager Service Library

George's Account | US South : Organization Finance : dev 1

Catalog Support Account

View All

MEAN Service

Overview Associated Instances

Deploys a CentOS based sample Kubernetes Cluster in Bluemix with Strongloop/Loopback framework and best practices SW (Node.js, Angular, MongoDB) able to run the included sample application. The topology splits the DB , Application and Front end across the Kubernetes minions. To access the application, please see the instruction in the output log.

[View Docs](#) [Terms](#)

AUTHOR IBM
VERSION 1.5
PUBLISHED 13/02/17

Features

With the service, you can order any item you want in any time, with the capabilities as

- Flexibility of quota request and assignment
- One panel of operation
- Multi-channel alert system
- High availability and redundancy
- Automated and on-demand no-stop backups
- Monitoring tools

Components

- MongoDB
- Express.js
- Angular.js
- Node.js

1 Order

3. Preview a Service

George previews the service details, and he wants to see whether he has instance associated to this service or not.

*Sandy can customize this page with multi-media contents.

*Will have Price information in future quarter.

Design Thinking

1 The "Order" button is fixed in the bottom of the service detail page. It's easy for user to quickly order this service.

DESIGN STORY

As George I can see details of the Service Offering before I order it.



LXF DESIGN

Docs Contact 24 Notifications

George's Account | US South : Organization Finance : dev 1

IBM Bluemix Application Services

Cloud Automation Manager Service Library Catalog Support Account

View All

MEAN Service

Overview Associated Instance

You haven't ordered this service, click to [order](#).

Order

3. Preview a Service

George preview the Associated Instances details.

And he click the order button to order this service.

Design Thinking

- 1 If user has no associated instance, there will show a image and a tip, prompting user to order. And according to the principle of proximity, user can directly click the tip and go to order page.



The screenshot shows the IBM Bluemix Application Services interface. At the top, there are navigation links for 'Docs', 'Contact', '24 Notifications', 'George's Account | US South : Organization Finance : dev 1', 'Catalog', 'Support', and 'Account'. Below this, the 'Cloud Automation Manager' and 'Service Library' are visible. A 'View All' link leads to the 'MEAN Service' page, which is currently 'Ordered'. The 'Associated Instances (1)' tab is selected, showing a table with one row:

NAME	STATUS	SERVICE OFFERING	SPECIFICATION	ORDERED TIME
MEAN for FADev	Running	MEAN Service	Env: Dev, Size: S	7/20/2016, 11:33 AM

A context menu is open over the first row, listing 'View Details', 'Duplicate', and 'Terminate'. A hand cursor is hovering over the 'Order' button at the bottom right of the page.

3. Preview a Service

George preview the Associated Instances details.

And he click the order button to order this service.

Design Thinking

- 1 If user has associated instance, there will be a table to show the instance.
And user can directly take actions of this instance, or click the name of this instance going to instance detail page.



LXF DESIGN

Docs Contact 24 Notifications

George's Account | US South : Organization Finance : dev 1

IBM Bluemix Application Services

Catalog Support Account

Cloud Automation Manager Service Library

MEAN Order a Service Basic Info Input Parameters

MEAN Service 1

Deploys a CentOS based sample Kubernetes Cluster in Bluemix with StrongLoop/Loopback framework and best practices SW (Node.js, Angular, MongoDB) able to run the included sample application. The topology splits the DB , Application and Front end across the Kubernetes minions. To access the application, please see the instruction in the output log.

[View Docs](#) [Terms](#)

AUTHOR IBM
VERSION 1.5
PUBLISHED 13/02/17

Name: MEAN for FA Dev

Description: For finance dev

Reason for Order: For finance dev

Environment:

- Dev MEAN single stack
- Test MEAN single stack
- Staging MEAN single stack or MEAN 3 tiers stacks
- Production MEAN 3 tiers stacks

Size:

- Small CPU: Dual-core Memory: 3G Storage: 500G

Cancel Next

LXF Design. 李晓凡设计.

4. Order a Service

Step 1 - Basic Info:

George starts to order the service by inputting Instance Name, Description, Reason for Order, Environment, and Size.

Design Thinking

- 1 The left part of this page will show the introduction of this service. To avoid user make mistake and order the wrong service.

DESIGN STORY

As George, I can specify a name for my new instance during ordering.

[← MEAN](#)

Order a Service

Basic Info Input Parameters

MEAN

MEAN

- * Hostname: myhost.ibm.com
- * Disaster Recovery Policy: None
- * Back Up Policy: None
- * Data Classification: Internal

MongoDB

- * User Name: Name
- * Password:
- * Re-enter Password:

Express.js

- * User Name: Name
- * Password:
- * Re-enter Password:

[Previous](#) [Order](#)

4. Order a Service



Step 2 - Input Parameters:

George fills in values for the parameters exposed from the service. Then George clicks on the "Order" button to submit the order.

*The parameters set will be different based on what Env and Size user selects in Step 1.

Design Thinking

1 The order page divides into two sections: Basic Info & Parameter. There are three reasons:

1. User needs to fill a lot of info, dividing it into two sections can help users organize this info more clearly.
2. Once users make some mistakes, they don't need to start all over.
3. CAM allows users to change the parameter part of the instance they ordered. So that, when users do this action, we can directly link them to this page. It will reduce the work of developers.

DESIGN STORY

As George, I can select valid combinations of service parameters e.g. environment v size and click order.



4. Order a Service

George sees a confirmation dialog and then clicks on “Go to Deployed Instances” to check the instance status.

Design Thinking

- 1 The ordered successfully pop up should has two access, one go to the Deployed Instance page, so George can manage instances, the other one go to the service library page, so George can order another service. In this way, the UX flow of CAM Portal will become a whole loop.

DESIGN STORY

As George, when I click order I see a confirmation dialog that allows me to navigate to the instances view (scoped to the type of order I have submitted) or back to the catalog.



LXF DESIGN

Cloud Automation Manager > Deployed Instances

Order is completed: Your service instance MEAN for FA Dev is running now.

Search Deployed Instances

NAME	STATUS	SERVICE OFFERING	SPECIFICATION	ORDERED TIME
MEAN for FA Dev	Running	MEAN Service	Env: Dev, Size: S	7/20/2016, 11:33 AM
LAMP FA Pro	Running	LAMP	Env: Dev, Size: S	7/20/2016, 11:33 AM
LAMP FA Dev	Running	LAMP	Env: Staging, Size: L	7/20/2016, 11:33 AM
Strongloop FA	Running	Strongloop	Env: Dev, Size: S	7/20/2016, 11:33 AM
DB2 FA	Running	DB2	Env: Prod, Size: L	7/20/2016, 11:33 AM
DB2 FA Test	Running	DB2	Env: Prod, Size: L	7/20/2016, 11:33 AM
MySQL FA Test	Running	MySQL	Env: Prod, Size: L	7/20/2016, 11:33 AM

All Services Instances (7) >

- Runtime (4)
 - MEAN (1)
 - LAMP (2)
 - Strongloop (1)
- Database (3)
 - DB2 (2)
 - MySQL (1)
- Infrastructure (15)
 - Virtual Machines (12)
 - Volumes (3)

Deployed Instances

Search Deployed Instances

George's Account | Finance : dev

Catalog Support Account

Order is completed: Your service instance MEAN for FA Dev is running now.

Search Deployed Instances

George's Account | Finance : dev

Catalog Support Account

5. See the Deployed Instance

George gets a notification to be notified the ordered instance is approved. George see the status of the instance becomes Running once it's approved.

Design Thinking

- User can directly take actions to instance through the action button on the right of the table.
 - The navigation on the left of the page can quickly filter the instance list and change the view of the table.
- Some times, user can have a lot of instances, so a convenient and efficient filter is necessary.

DESIGN STORY

As George, I can invoke an action on an instance in my instance view.
As Sandy/George I can see a list of all instances ordered



The screenshot shows the Cloud Automation Manager interface. On the left, there's a navigation sidebar with sections like 'All Services Instances (7)', 'Runtime (4)', 'Database (3)', and 'Infrastructure (15)'. The main area is titled 'Deployed Instances' and contains a table with columns: NAME, STATUS, SERVICE OFFERING, SPECIFICATION, and ORDERED TIME. A modal window titled 'Search Deployed Instances' is open at the top, showing filter options for Environment (Dev, Prod, Staging), and a list of dimensions (Dimension 1 to Dimension 6) each with four options (Option 1 to Option 4). A hand cursor is pointing at the 'Apply' button in the modal.

This screenshot shows the same interface after applying the filter. The modal now has 'Environment: Dev, Prod' selected. The main table now only displays instances that match these criteria. The columns remain the same: NAME, STATUS, SERVICE OFFERING, SPECIFICATION, and ORDERED TIME. The table lists six instances: MEAN for FA Dev, LAMP FA Pro, Strongloop FA, DB2 FA, DB2 FA Test, and MySQL FA Test, all marked as 'Running'.

5. See the Deployed Instance

George can use the navigation on the left or the filter button on the top to filter the instance according to some dimensions.

Design Thinking

1 Because sometimes, user can own a lot of instances, so a useful filter can really help user manage instance in a convenient way. Except the search bar and the left navigation, use also can click the filter button to filter instance through some key values.

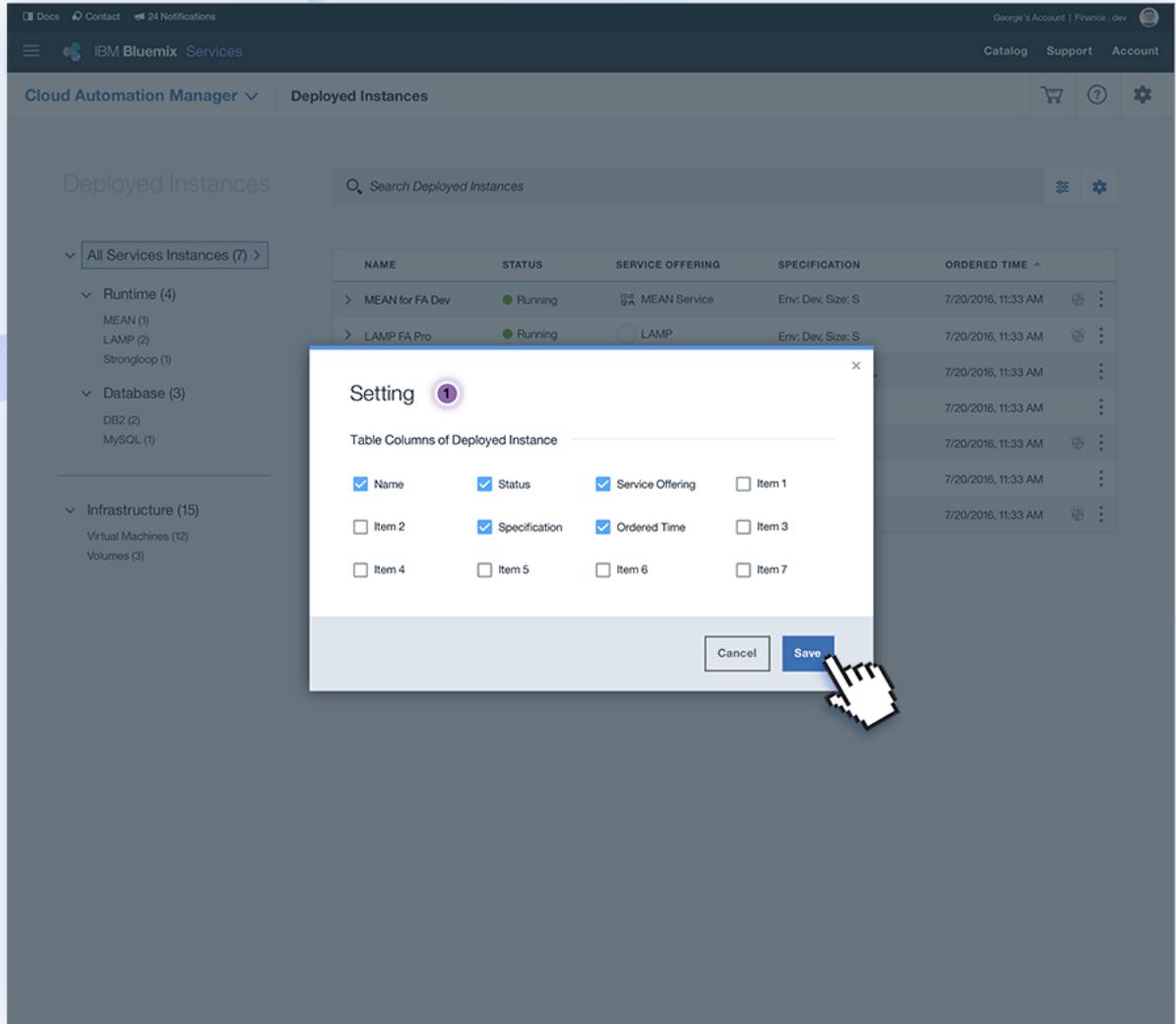
2 After setting the filter, the options user chosen will show in the tap way on the top of the table. To remind user this table has been filtered.

3 User can use the sort button on the right of the columns to sort the instance to ascending order or descending order.

DESIGN STORY

As George I can see a count and filter the instances list by "Service Instances" and "Resources" by clicking on the LeftNav

As George can filter my instances view by service parameter value e.g. Environment, Size.



5. See the Deployed Instance

George can click the setting button on the top to customize the columns of the instance table.

Design Thinking

- 1 Because one instance has all kinds of parameters, and different users focus on different parts, so the parameter they most concerned are different. In that case, we designed this function, allowing user to customize the columns of the instance table, to show the parameter they concerned on the top layer.

— DESIGN STORY —

As Sandy/George I can configure which columns are visible in the Instance listings.



LXF DESIGN

NAME	STATUS	SERVICE OFFERING	SPECIFICATION	ORDERED TIME	
MEAN for FA Dev	Running	MEAN Service	Env: Dev, Size: S	7/20/2016, 11:33 AM	
MEAN_Stack_1	Running	Template Offering: MEAN Service	Created Time: 7/20/2016, 11:33 AM		
Virtual Machines					
NAME	STATUS	LOCATION	VCPU	MEMORY	CREATED TIME
VM_1	Running	AWS: US-east	2	1024 MB	7/20/2016, 11:33 AM
VM_2	Running	Cluster_1	2	2048 MB	7/20/2016, 11:33 AM
Volumes					
NAME	STATUS	LOCATION	ATTACH TO	SIZE	CREATED TIME
Vol_1	Running	AWS: US-east	VM_1	500 GB	7/20/2016, 11:33 AM
Vol_2	Running	Cluster_1	VM_2	500 GB	7/20/2016, 11:33 AM
LAMP FA Pro	Running	LAMP			
LAMP FA Dev	Running	LAMP			
Strongloop FA	Running	Strongloop			
DB2 FA	Running	DB2			
DB2 FA Test	Running	DB2			
MySQL FA Test	Running	MySQL			

LXF Design.
李晓凡设计.

5. See the Deployed Instance

George can click the instance to expand the column to view the components belong to this instances.

Design Thinking

1 We use the folding type to show the components of the instance, because It's more fit the mental model of users. The most importance information can show in the top layer. And when user want to see more, they can expand the instance to dig down.

The most importance function of this interface is helping user to find out which part of their cloud development environment has problem. And because of the inclusion relationship of instance and components, if one component has went wrong, the instance will stop. So when user check and clear a fault, the first step should be finding which instance has problem, then they click this instance to see which stack went wrong, finally, they find out which infrastructure belonged to this instance has problem.

DESIGN STORY

As George I can expand any service Instance in my Instances view to see a list of the underlying resources.



Cloud Automation Manager | **Service Instances**

MEAN for Finance Dev Status: Running

Service Details

Description: Here is the description of service, Here is the description of service.

Console:	mean://vm1.example.com...	Show	Ordered Time:	7/20/2016, 11:33 AM
User Name:	root		Created Date:	7/20/2016, 08:21 PM
Password:	*****	Show	Environment:	Dev
Service Offering:	MEAN Service		Size:	Small
Owner:	George			

Parameters

MEAN	Hostname: myhost.ibm.com	Disaster Recovery Policy: None	Back Up Policy: None
MongoDB	User Name: name	Password: *****	Show
MongoDB	User Name: name	Password: *****	Show
MongoDB	User Name: name	Password: *****	Show
MongoDB	User Name: name	Password: *****	Show

6. Manage the Instance

George can click the name of the instance to view the details of the instance.

*George can click "Edit" to update the parameters and then apply the change to running instance.

Design Thinking

① The key information of this instance showed in the top bar which is fixed. No matter which tap user switch to, the key info will always show.

② When user click edit to update the parameter of instance, the page will jump to The Fill Parameter section of Order the Service page.

In this way, because user already viewed this page before, they will very familiar with the action flow. What's more, the work of developer also will be reduced.

DESIGN STORY

As George, I can view the detail of instance.
As George, I can edit the parameter of instance.



LXF DESIGN

Cloud Automation Manager ▾ Deployed Instances

George's Account | US South | Organization Finance | dev 1

Catalog Support Account

Instances

MEAN for FA Dev Status: ● Running

Overview Resources Logs

Virtual Machine (1)

NAME	STATUS	LOCATION	VCPU	MEMORY	CREATED TIME
> VM_1	● Running	AWS: US-east	2	1024 MB	7/20/2016, 11:33 AM
> VM_2	● Running	Cluster_1	2	2048 MB	7/20/2016, 11:33 AM

Hostname: vm4.example.com Console: [vm4.example.com... ↗](#)

IP Address (private): 192.177.3.2 User Name: name

IP Address (public): 192.177.4.3 Password: ***** [Show](#)

VCPU: 2 Total 2.048MHz; Occupied 1.024MHz

Memory: 2048 MB Total 2.048MB; Occupied 1.084MB

Volumes (2)

NAME	STATUS	LOCATION	ATTACHED TO	SIZE	CREATED TIME
> Vol_1	● Running	AWS: US-east	VM_1	500 MB	7/20/2016, 11:33 AM
> Vol_2	● Running	Cluster_1	VM_2	500 MB	7/20/2016, 11:33 AM

6. Manage the Instance

George can click the resource tap to view the details of the infrastructures belong to this instance.

Design Thinking

- 1 The resource page use the same interaction style and logic as the instance list page. Using the folding type can make the interactions of CAM more unified, also can reuse some code and reduce the work of developers.

DESIGN STORY

As George, I can see the detail of infrastructures.



WORDS IN THE END

To be honest, this project is really killing me, but No pain no gain. I also learned a lot from it.

The major reason cause me trouble is I am not good at Agile Development working mode.

The tight schedule and always changing demands make me really exhausted.

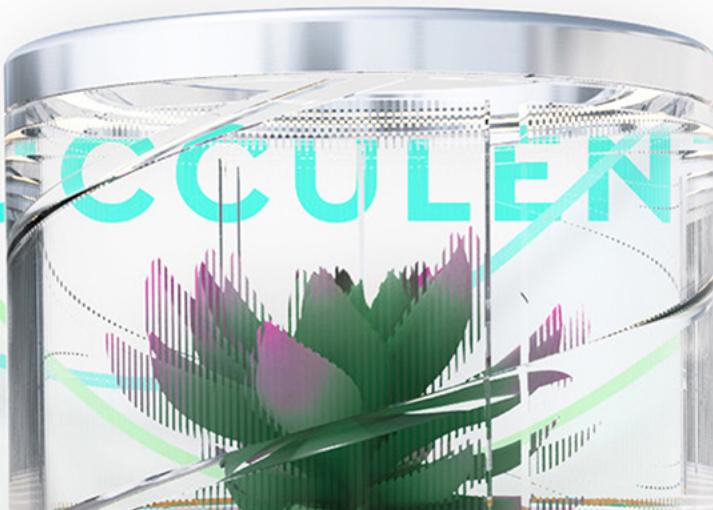
But after this project, I got the essence of Agile Development Working Mode. **Changing is the soul of Agile Development Working Mode. Everyone involved need to adapt.** But it dose not mean you need to wast a lot of work. The key is you should know what your product mange and other coworker want to get from your design. The design does not need to be pixel perfect, only need to delivery the information your product manger want to get. **You need to catch the core of PD's needs.** In this way, even the demand of PD change a lot, you can easily finish it every time.

What's more, **Using you design to be a solid bridge**, and make the communication of your team more intuitive. Using your design to show the problem, to show the strong points of team's discussion. Most important, **know your user better and speak for you user**. Because it's UX designer's duty to present users to discussion with the product manager and developers.



NEVER SAY

GOODBYE TO YOUR SUCCULENTS



TODAY



UX DESIGN

LXF DESIGN



TWIST.



UX DESIGN

LXF DESIGN

TWIST.



This project is the final test of the second-year of my graduate study. It was mainly directed by my teacher who came from Australia Monash University.

My project is about helping people to easily take care of their succulent.

As we know, succulent is very popular in china, and it's a little bit hard to plant. What's more some succulents are very expensive.

So, I want to design a smart platform to solve problems relevant to planting succulents.

This project has took me almost 7 weeks. I have done a lot of research, including the heat of succulent, why people love succulent, who love growing succulent, habits of succulent and how to plant a perfect succulent.

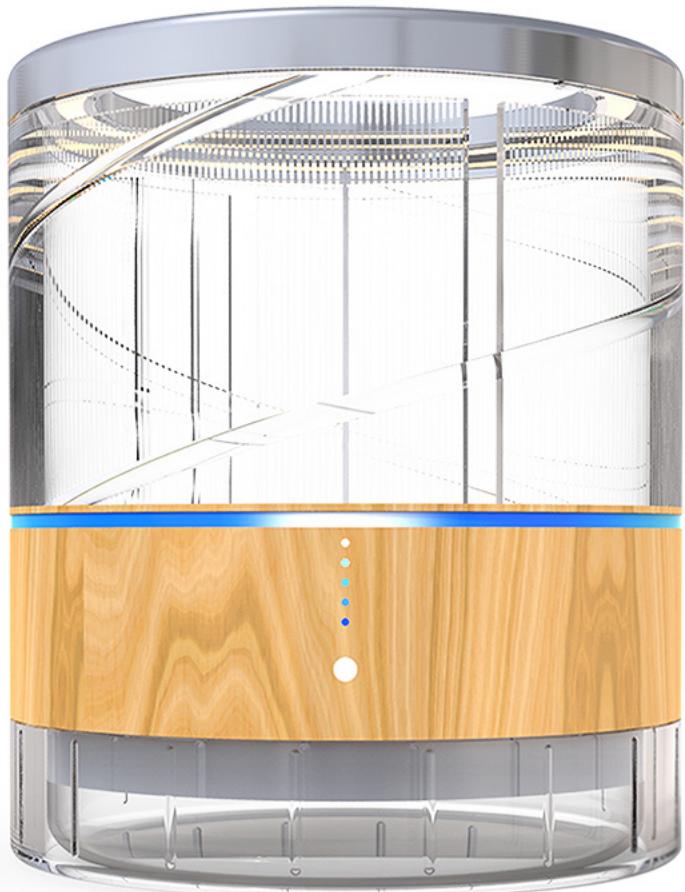
After numerous studies, **I have come up two design.**

TWIST. Smart Pot & TWIST. App



X





LXF DESIGN

TWIST. Smart Pot

The Twist smart pot is designed for automatically plant succulents. The Twist smart pot is a innovative device which aims at help users to protect and grow their succulent plant. It can identify the breed of plants and offer the information to the user. According to the breed of plants, it can automatically make plan of how to grow perfect succulent.

Click The Link To View More About TWIST. Smart Pot

点击链接，到我的个人网站查看TWIST.智能花盆的更多内容

 <http://lxfdesign.oschina.io/twist-smart-pot.html>



TWIST. App

The TWIST. app can connect with the TWIST smart pot. The user can scan the plant through the app. So that, the smart pot can identify the breed of the plant. And according to the habits of the plant, the app will make a perfect planting plan for the succulent. The smart pot will cooperate with the app to build a optimal environment far the succulent.

The user also can monitor the health condition of the succulent through the app at anytime.

What is more, the app will notify users timely when the succulent has trouble.



BACKGROUND



As we know, succulent plants it is very popular in china. Almost everyone has one on their desk.

A friend of mine, who is a big fan of succulents, once has bought a very expensive succulent plant which called Yulu, and cost him 850 yuan. But because he didn't know this kind of plant well and been negligent. This plant died soon after.

He has grown succulent for a long time, and there are dozens of plants in his home. But because there are many kinds of succulent and they all have different characteristics, such an experienced grower as my friend still can't grow all the succulent well.

Succulent is popular.

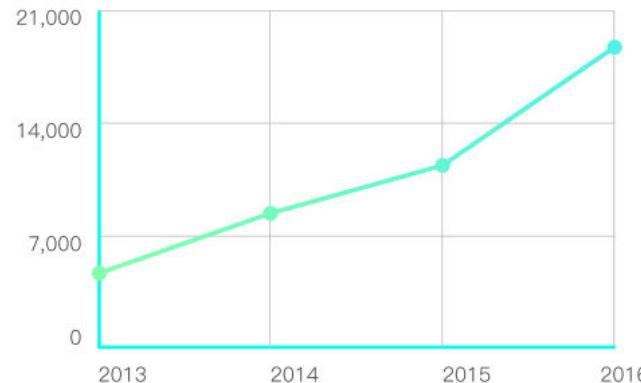
Succulent need considerate care.

Some succulents are very expensive.

THE HEAT OF SUCCULENT

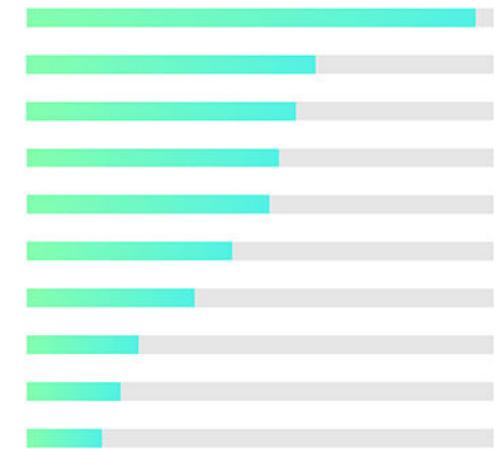
The Search Fame

Heat on The Internet



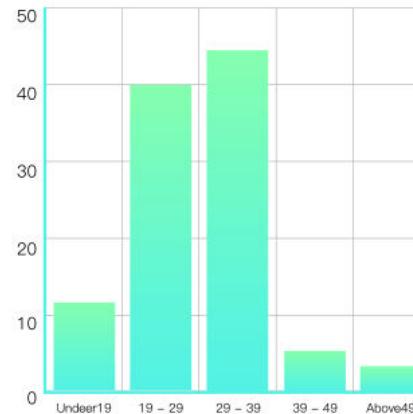
Keywords Ranking

1. How to grow succulent
2. Picture
3. Picture of succulent
4. Succulent in the summer
5. The price of succulent
6. Succulent flower
7. How often watering
8. Water and succulent
9. leaf of succulent
10. Aquatic



Features of Grower

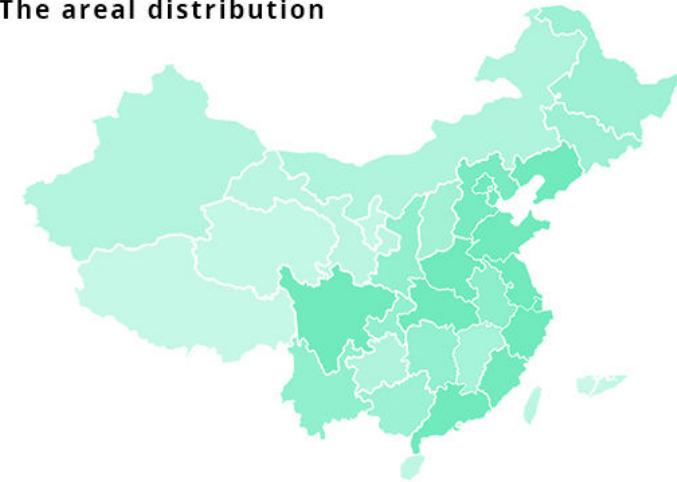
The age distribution



The gender distribution



The areal distribution





IDEO

Role-Playing

I went to the flower fair and bought two different kinds of succulents. I used the same way to cultivate them. Try to find the pain point during the process. In the end they have the different results.

LXF DESIGN



Go to the flower fair



Cultivate the succulent



The result

UX DESIGN



TARGET USER

Who is 19 ~ 39 years old, can accept new things .

Who is live in the area where is lack of sunshine and the air is humid.



Amateur Grower

Lack of experience and knowlage of plant succulent.
Only grow one or two plants.



Aficionado Grower

Has a lot of succulent
Do not has enough energy to take all the plant.



Problems of target user

1



Karen

Amateur
25 years old

Have 2 pots of
succulent
plants

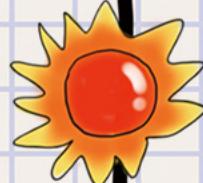
Shopping

The grower dose not know which kind of succulent plants they bought, and unfamiliar with the habit of these plants, just chose them by appearance.

Growing

The only care grower can take of these plants is watering, and they do not know when or how much water the plant should be watering.

They usually put plants on their desk where is lack of sunlight. Because the plants do not have enough light for a long time, they became very and ugly.



Because the succulent plant is growing very slow, so that, it is hard to judge that whether they are health or not by their look.

Ending

Usually, when we found the problem, the plant is going to die. And we do not know how to save it.





Problems of target user

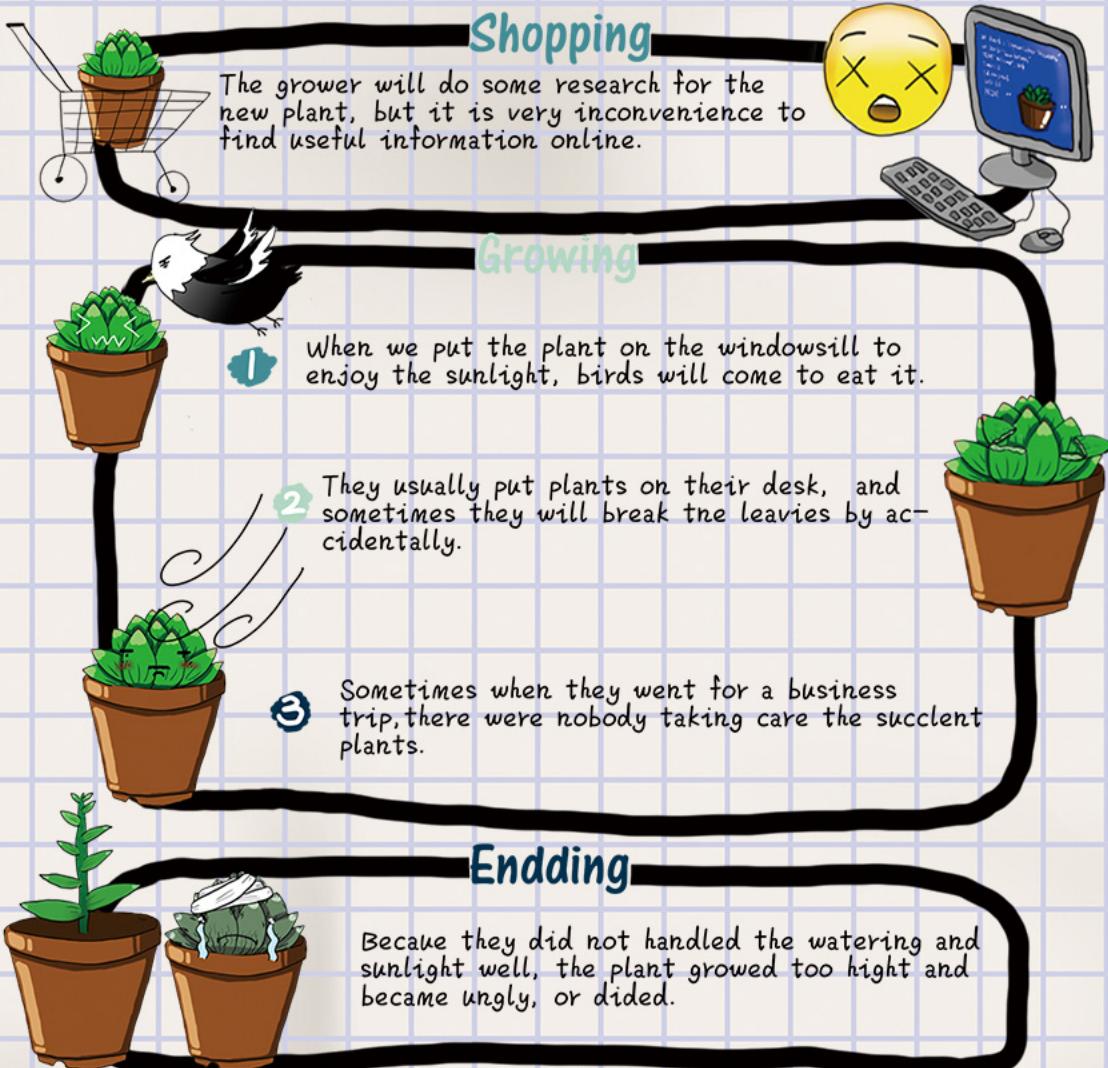
2



Faye

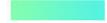
Aficionado
24 years old

Have 32 pots
of succulent
plants





PAIN POINTS SUMMARY



1. There are lots kinds of succulent, and they have different habits, it's difficult to take care all of them when you have multiple succulents.
2. It's difficult to look up planting knowledge about specific succulents.
3. Water, sunshine and temperature are the key elements of succulents' health, but people usually don't know the suitable value of them.
4. When succulent explore in the air, worms or bird like to bite them, and it's hard to detected.



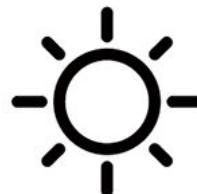
FUNCTION CLARIFICATION



After research, I defined the function of Twist should focus on solve the most important parts of planting succulents.



WATERING



SUNLIGHT



TEMPERATURE



PROTECTION



Perfect Watering Quantity
65%RH~75%RH



Perfect Sunlight
5~7 Hours/day
30000~60000 lux



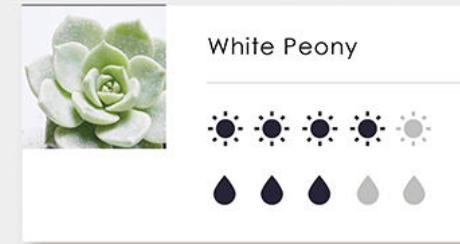
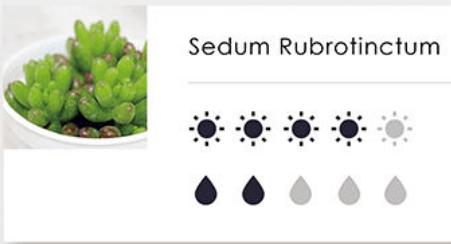
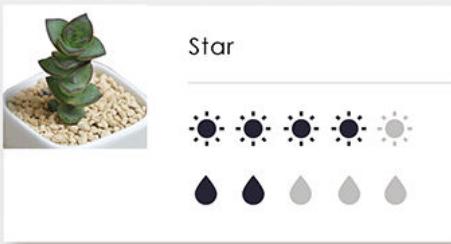
Perfect Sunlight
18~28°C At Daytime
10~18°C At Night



Protect
Avoid physical injuries



The Habits of Common Succulent Plants





UX DESIGN



Campfire



Silent Night



Baby Bear



Echeveria Secunda



Lilacina



Astridia Velutina



Rabbit Ear



Sedum Adolphii



Gyokuro





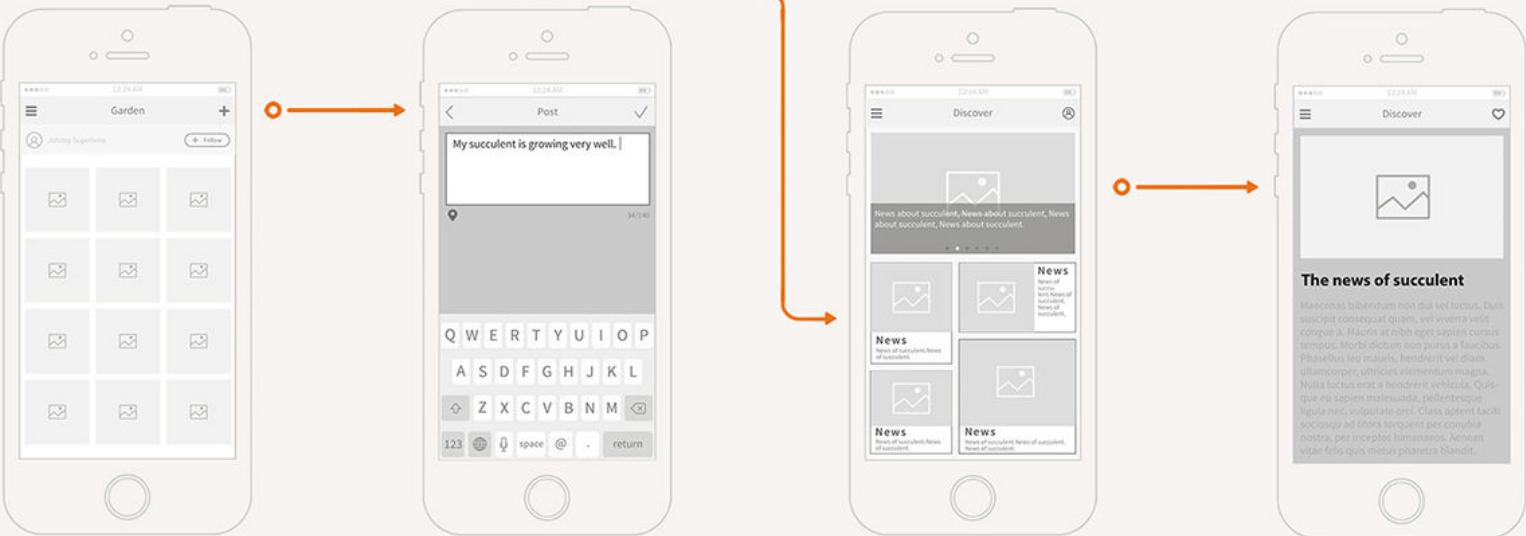
TWIST.

WIREFRAME





UX DESIGN





TWIST.

The convenient, safe and efficient way to take care of your succulents.





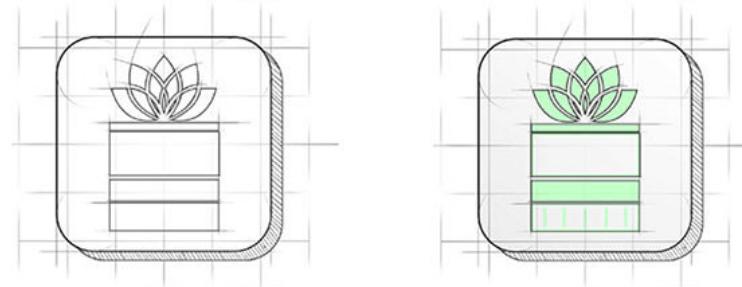
#c4ffc7

20 %
Humidity

Do not watering the succulent yet!
The humidity is excellent!

It is Okey

#94fdf1



TWIST.



LXF Design.
李晓凡设计.

UX DESIGN

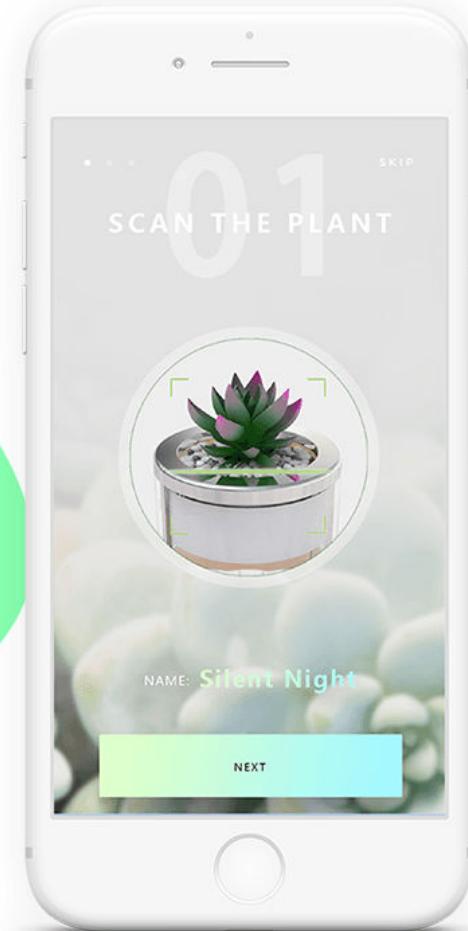


LOG IN

The user can log in their own account and enjoy the exclusive service for their plant.



UX DESIGN



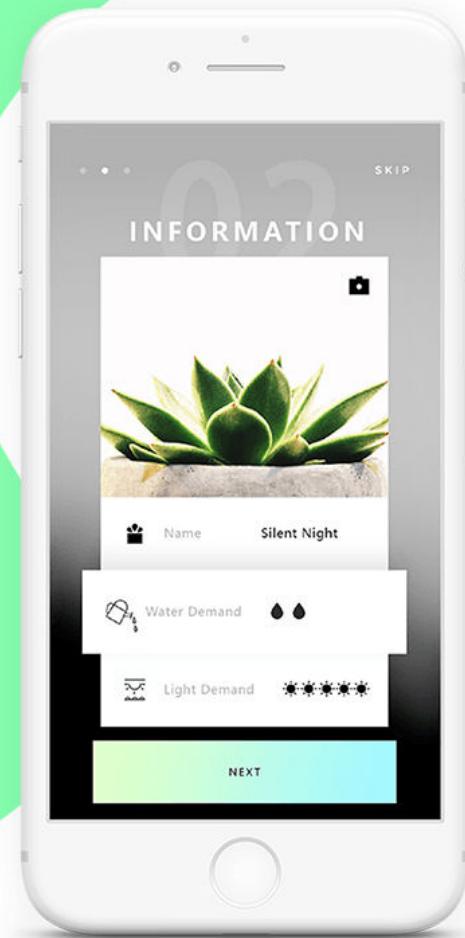
SCAN THE PLANT

The app can identify the breed of the succulent through the camera.

LXF DESIGN



LXF DESIGN



INFORMATION OF PLANT

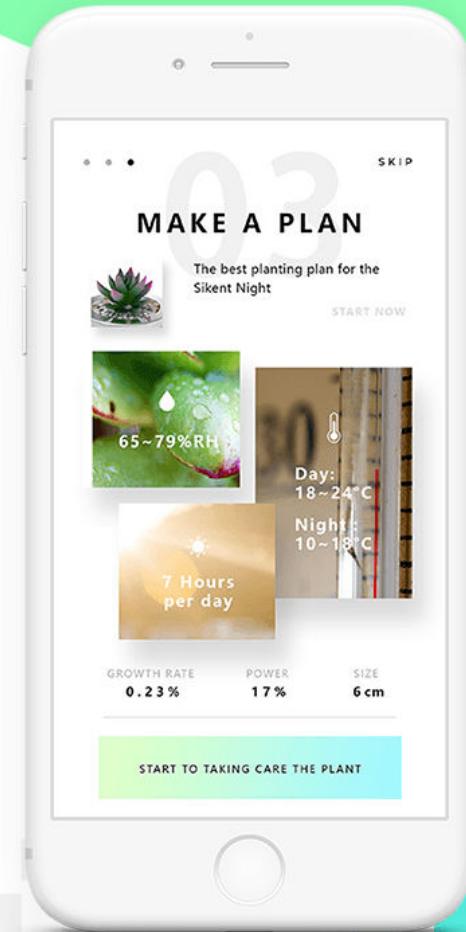
After identified the breed of the succulent, the app will show the information of the succulent.





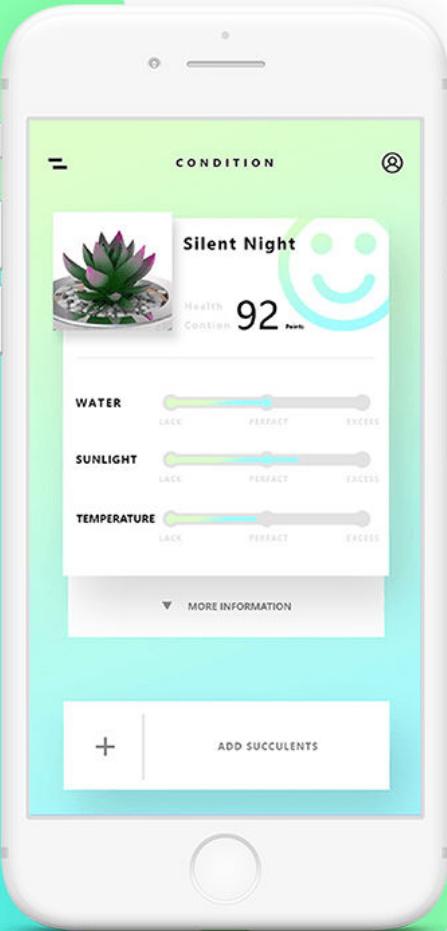
MAKE A PLAN

According to the information of the succulent,
the app will automatically make a growing
plan for the succulent.





LXF DESIGN



MONITOR THE CONDITION

The app can show the real time condition of the succulent, the data is come from the TWIST smart pot.

UX DESIGN

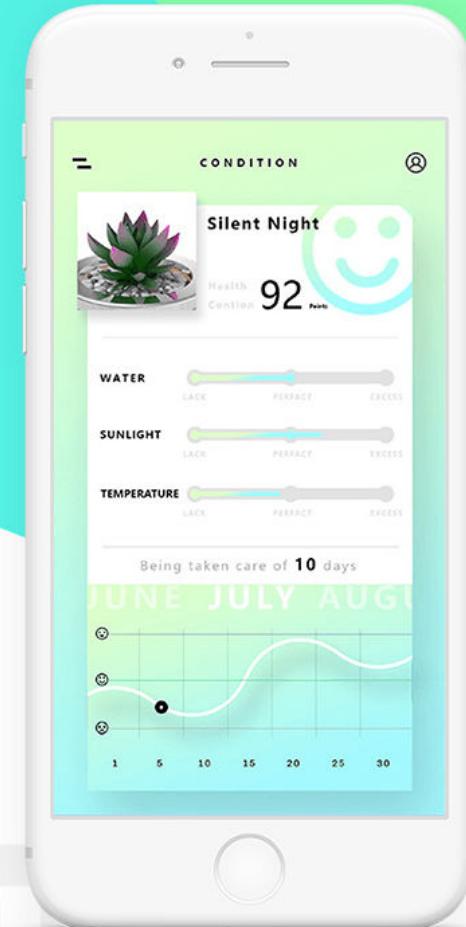


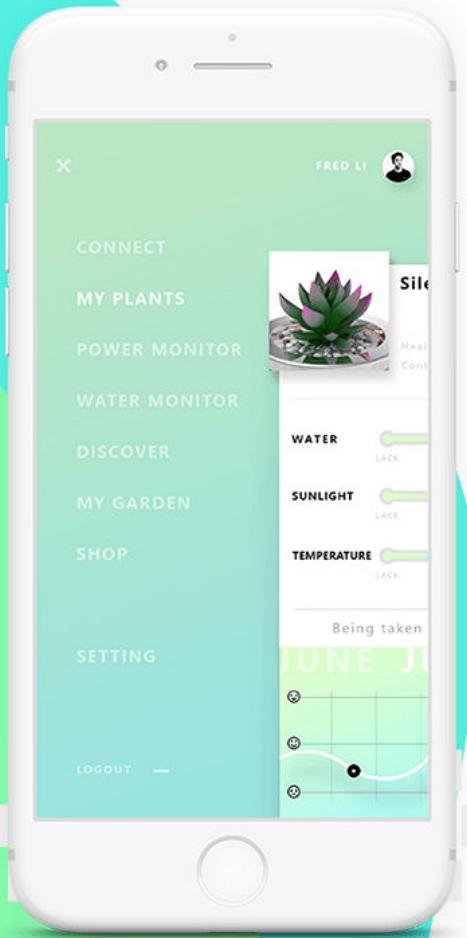
LXF DESIGN

UX DESIGN

HEALTH REPORT

The health condition will be recorded. After analysis, the user will get a accurate health report.





SIDE BAR

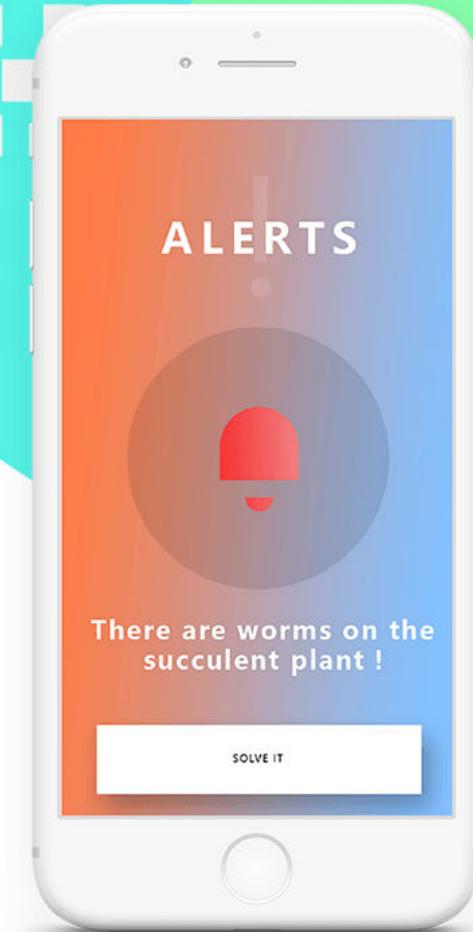
The app not only can supervise the succulent, but also can provide multiple services to the user, including on-line shopping, social, reading.



UX DESIGN

WARNING

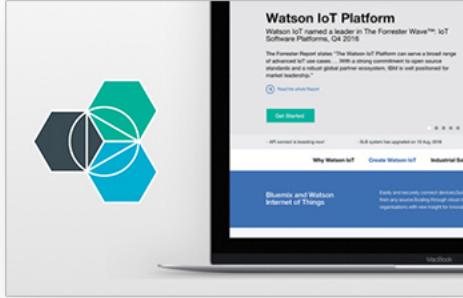
When the problem occurs, the app will
notify the user timely.



LXF DESIGN

NEVER SAY
GOODBYE
TO YOUR
SUCCULENTS





IBM Bluemix Solution Page



Redesign 51job Webpage

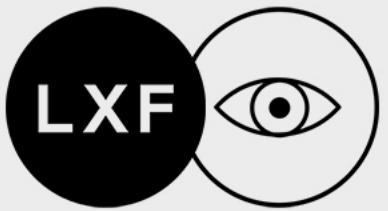


Magi Samrt Phone Assistant

Click The Link To View More UX Design Works

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 <http://lxfdesign.oschina.io/ux-design.html>



VISUAL DESIGN

Click The Link To View More About TWIST. Smart Pot

点击链接，到我的个人网站查看更多视觉设计作品

 <http://lxfdesign.oschina.io/visual-design.html>

• 300+ icon of IBM Ops Platform



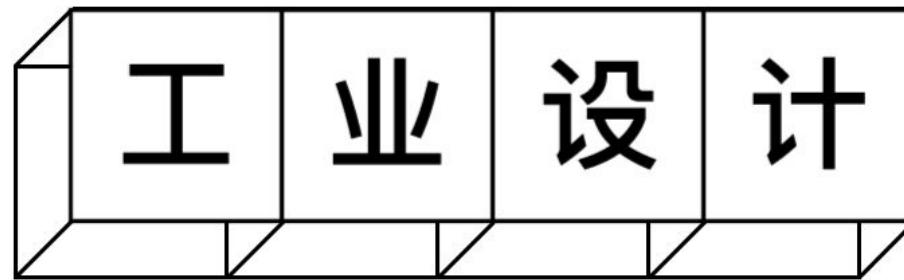
• Wechat Emoji



• Banner of IBM Bluemix



INDUSTRIAL DESIGN



LXF DESIGN

INDUSTRIAL DESIGN

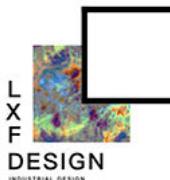
Click The Link To View More About TWIST. Smart Pot

点击链接，到我的个人网站查看更多工业设计作品

 <http://lxfdesign.oschina.io/industrial-design.html>



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李晓凡设计.





INDUSTRIAL DESIGN



FUTURISTIC CAMERA
2016.03



HUAWEI PEN
2016.04



DIGITAL PEN
2016.04



HUAWEI TABLET
2016.05



TABLE LAMP
2016.07



END TABLE
2016.07



LIGHTING EARPHONE
2016.06



BLACK EARPHONE
2016.06



SCREWDRIVER
2016.06



CAL-SCALE
2016.02



COAT HANGER
2014.11



FOLDING CHAIR
2015.04

THANKS FOR YOUR TIME



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