

Lightning Platform Mobile

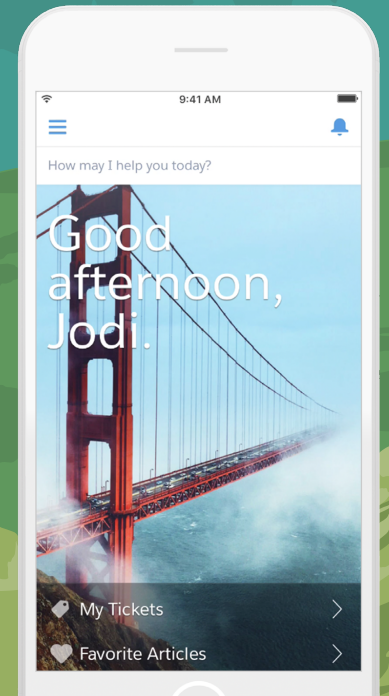
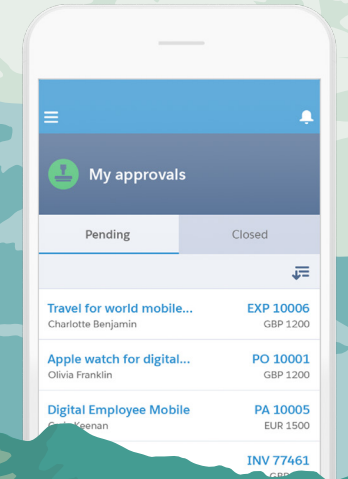
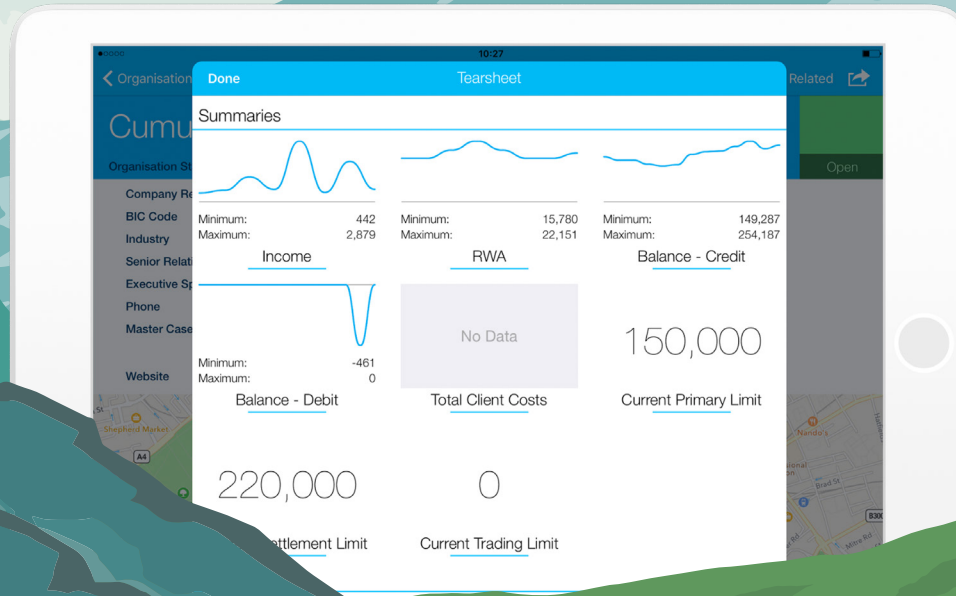
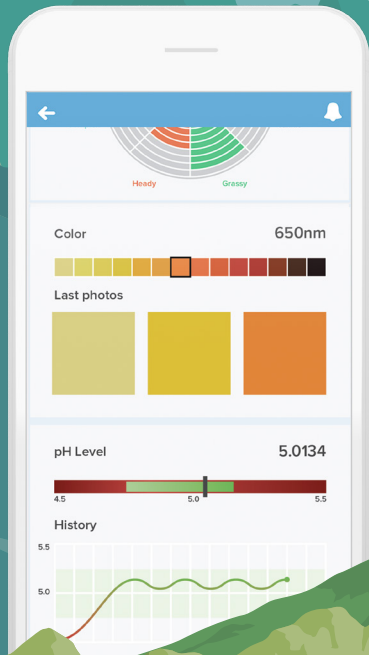




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Mobile Apps Are Becoming Smarter and More Powerful

The time we spend looking at our mobile phones has grown to over 3.35 hours a day. Rapidly advancing engagement and productivity capabilities have turned mobile apps into an essential part of our lives. Thanks to the developments around AI, automation, and experiential technologies like AR and chat-bots, the level of personalization mobile apps deliver has never been higher.

“Mobile is one of the top 3 technologies expected to have the most transformational business impact by 2020”

– Second Annual State of IT Report, Salesforce Research



Cloud services have unlocked a new set of capabilities in AI, process automation, and user experience - all of which enhance the value of mobile apps at work and at home. Below are the top 3 trends that drive that value:

- *Voice and Chat-bots Drive Mobile Engagement*

Voice capabilities that combine speech recognition with AI deliver a whole new level of value by letting users take actions that would otherwise require trained support staff. The result is a major shift to AI-driven conversational usage of mobile apps. By the end of 2018, 91 million people in US are expected to use a voice assistants at least once per month¹.

- *Mobile Extends Immersive Experiences*

Extending mobile apps with augmented reality is another trend that's on the rise. Application of AR in commerce, tourism, gaming, media, and entertainment are going mainstream. In fact, the market for AR is expected to grow 73.8% by 2023². With this, mobile becomes a key part of multi-experience as opposed to a stand-alone channel.

- *Mobile + Process Boosts User Productivity*

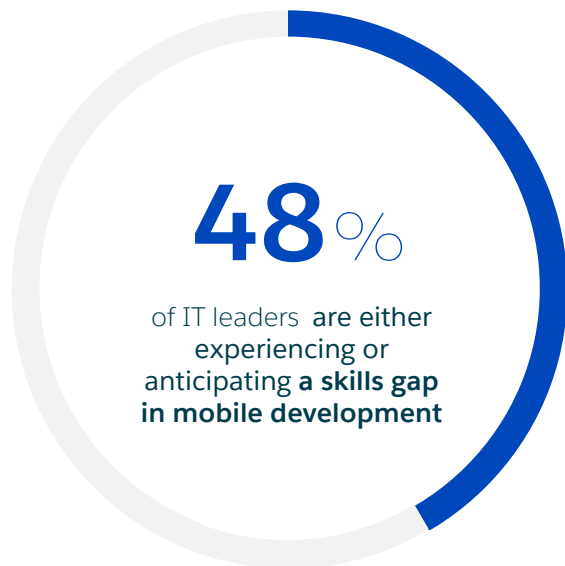
Up until now, embedding strong process capabilities into mobile apps were limited to custom mobile back-end services that were difficult to maintain and integrate into enterprise systems. With close integration of flow services into mobile development tools, mobile apps can now be built 'process-first' and unlock automation on many levels.

¹eMarketer, 2018

²Research and Markets, Jan 1 2018

The Mobile Developer Gap

Mobile development talent is becoming increasingly scarce.



– Second Annual State of IT Report, Salesforce Research

1 *Native Mobile Developers are Hard to Retain*
The native mobile developer talent to build bespoke apps using Java or Swift are becoming harder for IT teams to find and retain. With the explosion of game development and mobile-first start-ups, most native developers are choosing more mission-driven careers that either fulfill their passions or have a promise of big payoff. After all, most enterprise talent for mobile apps can be drawn from a bigger pool of 18 million web (JavaScript) developers that are less scarce.

2 *Web Developers Are Focused on the Full Stack*
The proliferation of JavaScript in mobile allows any web developer to build a mobile app. However, looking closely at the trends in application development - from micro-services to major shift to cloud apps, web developers end up spending more time extending cloud services, developing APIs, and doing full stack development. While frameworks such as React Native do provide mobile development efficiency, developers are still required to code platform-specific capabilities for iOS and Android that gets harder to maintain over time.

The Need for a New Kind of a Mobile Developer

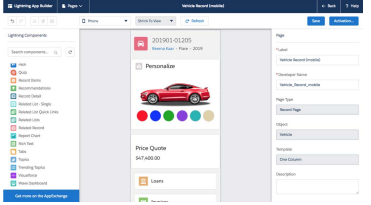
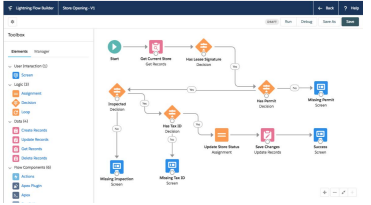
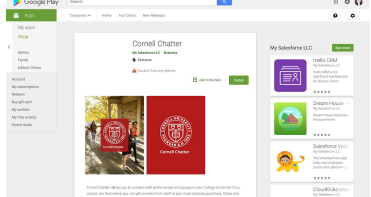
There's an opportunity to empower a large group of non-technical users to become skilled mobile developers and create high-impact employee or customer mobile apps - easily and securely. The question is, how to best empower this talent?

Modern Low Code App Development Using Lightning Platform Mobile

Lightning Platform Mobile empowers everyone to build and publish rich mobile apps with low code. Its meta-data driven approach and pre-built components allow business users and admins to not only create the user interface of the app, but also enrich it with data, logic, security, and even AI using simple clicks. Then, for launching mobile apps to app stores, the Salesforce listing wizard lets them easily publish the app to the App Store and Google Play.

Breaking It Down: What's Inside Lightning Platform Mobile

Lightning Platform Mobile consists of a set of builders, services, and publishers that simplify mobile app development by allowing business users without technical skills to design, build, and launch mobile apps for their employees and customers.

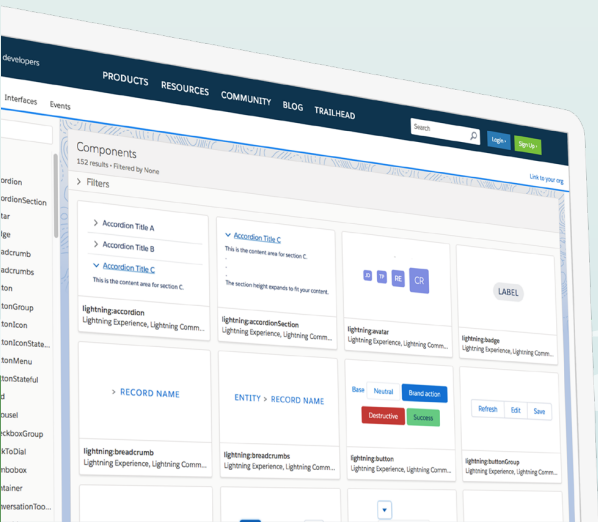
INCLUDED	USE CASE	TOOL OR SERVICE	WHAT IT ALLOWS YOU TO DO WITH LOW CODE	EASE OF USE
Mobile Builders	<p>Create App's Data Model and User Interface</p> 	<ul style="list-style-type: none"> • Object Creator** • Schema Builder • App Builder • Community Builder* • Lightning Experience on Mobile** • Process Builder 	<p>Turn spreadsheets into objects for your app's data</p> <p>Create your app's data model by relating objects</p> <p>Create your app's interface and configure data</p> <p>Create a mobile-ready community (external apps)</p> <p>Enhance low code component palette in App Builder by designing new custom components</p> <p>Design a basic process to add actions to the app</p>	<p>Learn in 2-4 weeks. Admins can use these tools to create mobile apps.</p>
Mobile Services	<p>Enhance App's Functionality</p> 	<ul style="list-style-type: none"> • Flow • Einstein Prediction Builder* • Einstein Bots* • Einstein Voice Assistant* • Mobile Push Builder • Shield* • Connect* • Identity* 	<p>Design elaborate flow logic and add to your app</p> <p>Build custom predictive fields powered by AI</p> <p>Build chat-bots to add to your mobile app</p> <p>Enhance apps with voice-powered AI assistant</p> <p>Add custom push notifications with no code</p> <p>Add data encryption, analytics, and auditing</p> <p>Connect to 3rd party and Salesforce apps</p> <p>Manage user access and permissions for apps</p> <p>Access a vast network of apps and data via APIs</p>	<p>Learn in 4-8 weeks. Admins can use these tools to enrich mobile apps; All tools except Mulesoft are low code.</p>
Mobile Publisher	<p>Publish the App to App Stores</p> 	<ul style="list-style-type: none"> • For Employee Apps* • For Communities* 	<p>Publish branded Salesforce Mobile apps</p> <p>Publish communities as a mobile app to public App Stores</p>	<p>Learn in 2-4 hours. Admins can use it to launch apps.</p>

*Add-on products

**pilot as of Jan 2019

Breaking It Down: Extend Low Code Development with Components

Business users need to easily tap into an enterprise-grade set of mobile services and components to ensure that their apps have complete business context and meet the requirements at hand. The developer-centric tools within Lightning Platform - including Lightning Component Framework and the Salesforce Developer Experience let developers collaborate with business user, and easily create and deliver custom components for mobile use.



LIGHTNING COMPONENT FRAMEWORK

EMPOWER BUSINESS USERS WITH MOBILE-READY COMPONENTS

The Lightning Component framework is a UI framework for building dynamic web apps for mobile and desktop. Any web developer can use this modern framework to create components - building blocks that admins can then access in their App Builder tool to design rich single-page **mobile applications** with drag and drop.

LIGHTNING WEB COMPONENTS

Lightning Web Components enhance productivity with web standards. The advantage here is that developers can use JavaScript to build components fast and enrich the app building palette for their business users to create apps. Lightning Web Components deliver faster app experiences for every user.

COMPONENT TYPES

Since the launch of Lightning Component Framework in 2015, developers and admins have had access to increasing number of components to create apps. Today, there is a growing ecosystem of more than 500 components and templates across the 4 categories below:

1 Standard Components

Standard components come out of the box and are built and maintained by Salesforce. You can access these components in the left side panel of the App Builder tool. The most popular standard components are Filter List, Report Chart, and Flow.

2 AppExchange Components

AppExchange Components are built by our partners and can be easily installed in any org by clicking on 'get it now' on AppExchange. The most popular mobile-specific component examples are TaskRay with a plethora of project management type components, and SharinPix for image augmentation capabilities on mobile.

3 Base Components

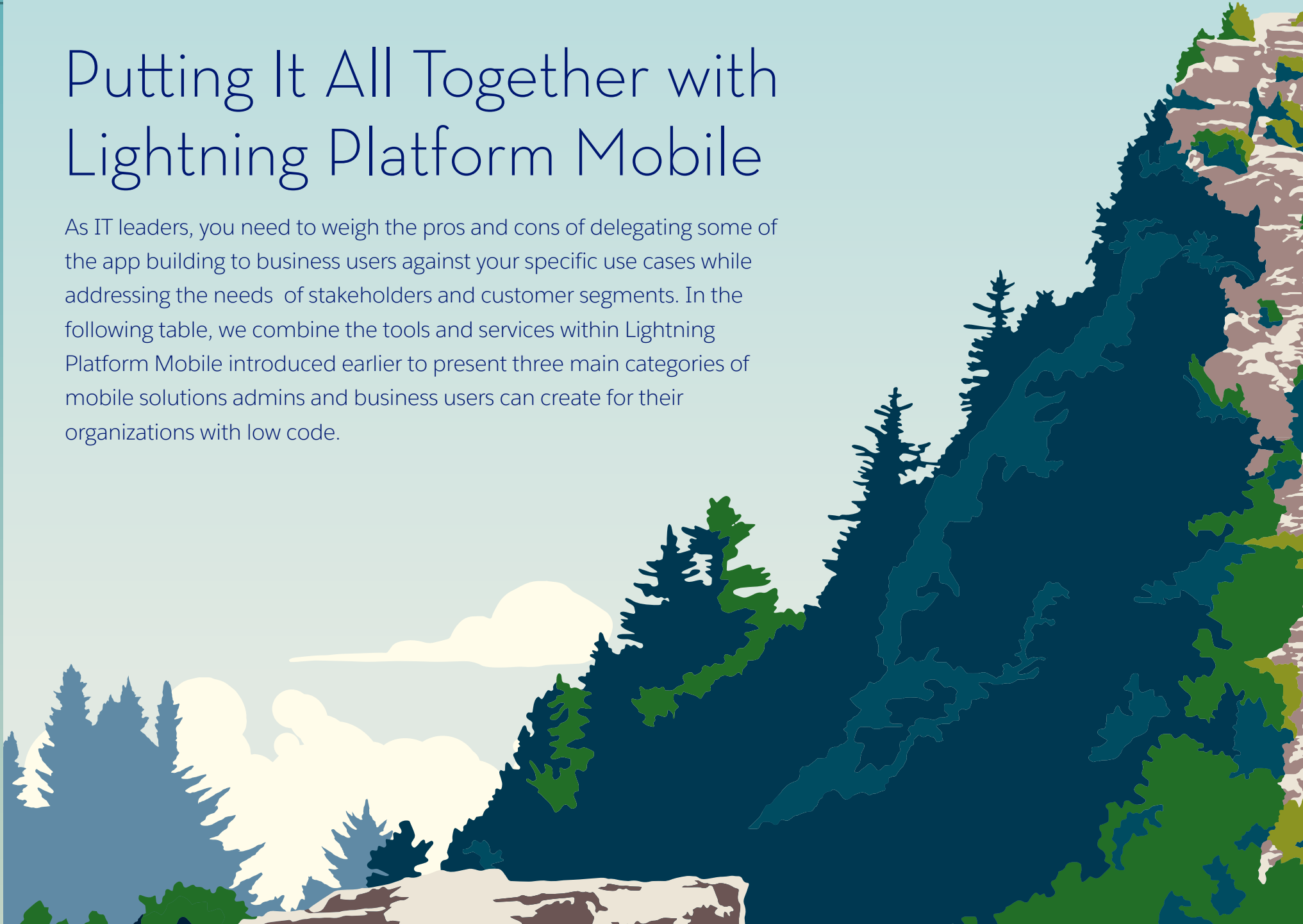
Base components are templates that developers can use to customize with code and transform into components that their low code app creating partners need. Each component provides simple attributes that enable variations in style. The simplicity of the base Lightning component attributes make them easy to use and customize saving developers time. They can be accessed in Salesforce's developer site.

4 Custom Components

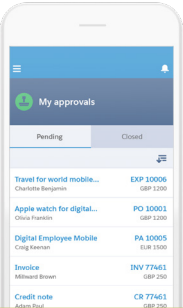
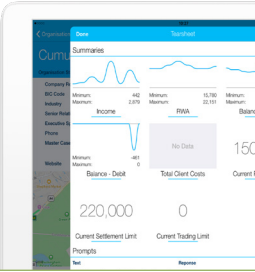
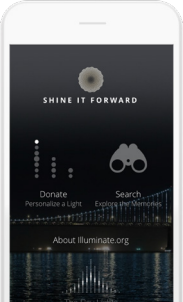
In addition to using out-of-the-box, partner-built, and template base components, any developer can code a custom component from scratch and deliver to the unique requirements of their business fast - using their favorite coding tools and the standard-based JavaScript. They can then easily make these custom components available to their org using Salesforce DX and its CI/CD capabilities.

Putting It All Together with Lightning Platform Mobile

As IT leaders, you need to weigh the pros and cons of delegating some of the app building to business users against your specific use cases while addressing the needs of stakeholders and customer segments. In the following table, we combine the tools and services within Lightning Platform Mobile introduced earlier to present three main categories of mobile solutions admins and business users can create for their organizations with low code.

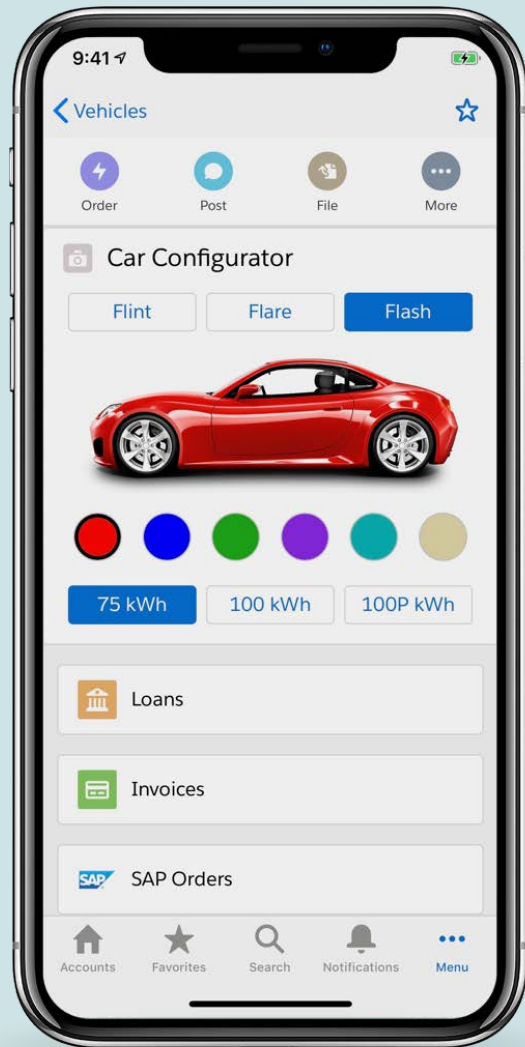


As discussed earlier, while these suggested application types are the most common, Salesforce has also seen customers create a number of variations to meet their particular requirements, budgets, and skill sets.

SOLUTION	WHAT KINDS OF APPS CAN I BUILD?	WHICH TOOLS DO I NEED TO BUILD IT?	WHAT ADDITIONAL FEATURES SHOULD I CONSIDER?
<p>Automate Employee Tasks</p> 	<p>Business Apps for Automating Tasks</p> <ul style="list-style-type: none"> Approvals Order Tracking Streamlining Sales Management Inventory Management Simple Site Surveys Time and Expense Tracking Internal Event Mgmt. Contract Management Concierge Apps 	<p>Mobile Builders: Object Creator, App Builder, Process Builder</p> <p>Mobile Services: Identity, Push Notifications, Workflow Rules (engine)</p> <p>Components: Standard OOTB; AppExchange (e.g. TaskRay)</p>	<ul style="list-style-type: none"> Einstein Prediction Builder (for predictive insights) Salesforce Connect (for 3rd party data) Salesforce Shield (for sensitive data)
<p>Mobilize Complex Processes</p> 	<p>Enterprise Apps for Mobilizing Complex Processes</p> <ul style="list-style-type: none"> Specialized Field Service E-detailing High-Touch Financial Management Field Asset Management Complex Site Surveys Event Management Realty Management Insurance Claim Submission 	<p>Mobile Builders: Schema Builder, App Builder, Flow Builder</p> <p>Mobile Services: Identity, Push Notifications, Search, Flow (engine)</p> <p>Components: Standard OOTB; AppExchange (e.g. Twilio); Base Components</p>	<ul style="list-style-type: none"> Einstein Voice Assistant Einstein Image Recognition Mulesoft (for multiple 3rd party data) Salesforce Shield
<p>Create Customer Experiences</p> 	<p>Customer and Consumer Apps for Creating 1-to-1 Experiences</p> <ul style="list-style-type: none"> Customer self-service B2C Loyalty Light mCommerce Apps Student Engagement Social Media/Community B2C Wellness/Fitness Recommendation Apps Partner Management 	<p>Mobile Builders: Community Builder, Flow Builder</p> <p>Mobile Services: Customer Identity, Push Notifications, Search, Flow (engine)</p> <p>Components: Standard OOTB; AppExchange (e.g. Twilio); Custom Components</p>	<ul style="list-style-type: none"> Einstein Bots Salesforce Connect Salesforce Shield Mobile Publisher Community Templates Mulesoft

Each of the approaches is further described in the following sections. Please also see “Reference Diagrams” at the end of this document for visual representations of each solution approach.

The All New Lightning Mobile Experience



“*The new Lightning user interface for Mobile is a key part of our vision to help anyone build smart, personalized mobile apps fast - with low code.*”

LEYLA SEKA | EXECUTIVE VICE PRESIDENT,
MOBILE



The Lightning user interface for mobile provides an easy to customize, personalized, and seamless experience.

LIGHTNING PLATFORM MOBILE FEATURE

Modern mobile experience that anyone can build with low code.

HOW IT WORKS

We believe in the productivity of the mobile user if they have all the apps they need in one single hub - one single app. And that app is called Salesforce Mobile App. Every mobile app you build with low code appears in the app launcher menu of the Salesforce Mobile App. Modernizing the user experience of this 'uber' app with Lightning Design System features - a new navigation model, personalization features, and modern look and feel means that now every app you create with low code will inherit these amazing features with very little effort:

UNIFIED EXPERIENCE ACROSS DESKTOP AND MOBILE

The new Lightning user experience on mobile is seamlessly connected to desktop. If a user customizes their tabs or look and feel, it is immediately reflected on mobile, and vice versa.

EASY TO CUSTOMIZE

Anyone can make mobile-optimized customization in App Builder to achieve the perfect experience for mobile apps.

MODERN, EFFICIENT NAVIGATION

A new modern tab bar navigation where each tab has its own navigation increases mobile user engagement and productivity.

PERSONALIZATION AT EVERY LEVEL

Depending on what your profile is and what your needs are every single user can have a tailored navigation to maximize value.

EXTEND BEYOND THE APP TO NATIVE DEVICE FEATURES

The new user experience extend beyond the app to mobile device capabilities such as advanced push, maps, and more.

Next Steps

As we've seen, Lightning Platform has everything you need to take full advantage of the mobile opportunities of unlocking business data, slashing your mobile backlog, and enabling all of your mobile developers to be productive and fast.

So, where do you go from here?



If you are a Business User or an Admin:

- 1** Get Hands on by Building a Mobile App.
Take the Trailmix that we have created to get you started on low code mobile apps using Lightning Platform Mobile.
[START LEARNING](#)
- 2** Meet Trailblazers Who Built Apps with Low Code.
Many trailblazers have unlocked the power of the Lightning Platform to build apps. See their stories and apps they created.
[MEET TRAILBLAZERS](#)
- 3** See A Gallery of Mobile Apps and Get Inspired.
See what other companies have built using Lightning Platform to transform the experience of every user.
[SEE THE APPS](#)



If you are an IT Leader:

- 1** Try the New Lightning Experience for Mobile.
If you are a Salesforce Customer, ask your Account Executive to join the pilot of Lightning Experience on Mobile.
[CONTACT US NOW](#)
- 2** Learn How to Empower Citizen Developers.
Tune in to our IT Visionaries podcast to hear from IT Leaders on how they empowered citizen developers to build apps.
[LISTEN NOW](#)
- 3** See A Gallery of Mobile Apps and Get Inspired.
See what other companies have built using Lightning Platform to transform the experience of every user.
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Have It All with Lightning Platform Mobile.

BUILD MOBILE APPS FASTER WITH THE
LEADING LOW CODE MOBILE APP
DEVELOPMENT PLATFORM

To learn more, visit salesforce.com/buildmobileapps.

To learn more, visit salesforce.com/platform



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