

DECEMBER 2020

INTRODUCING THE

ALLCANCODE PLATFORM

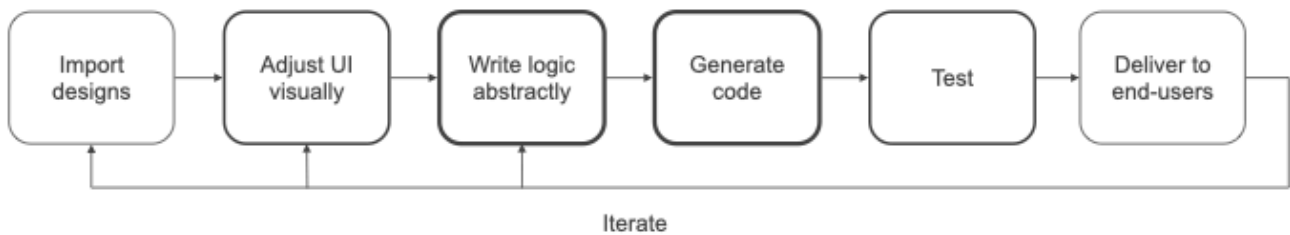
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ALLCANCODE PLATFORM

Software is inarguably the soul of the 4th industrial revolution, yet it is getting harder to build. The development process suffers from a vicious cycle as developers' supply does not match their demand while training new ones becomes difficult in a Babel of programming languages and frameworks that struggle to keep up with emerging technologies.

The industry had come up with a solution that dates back to the late 60s when researchers at the University of Michigan introduced the concept of Computer-Aided Software Engineering. Since then, vendors presented many tools, but all fell short of the unrealistic expectations raised to sell expensive licenses. Most of those products shared a fundamental flaw: they promised that business people would build complex software without writing a single line of code. However, that is impossible if the goal is to create custom software that delivers the competitive advantage that modern organizations need in digital transformation. Contemporary no-code and low-code platforms tend to offer templates of User Interface layouts and prefabricated logic modules that lead to applications that look and behave the same, failing to deliver the required differentiation factor.

Allcancode changes that by introducing the world's first **less-code platform** that provides an environment to support the whole custom software development process from the User Interface designs to the delivery to end-users. Simplification and automation enable the development of real custom web and mobile applications that offer modern organizations' technology-based competitive advantage.



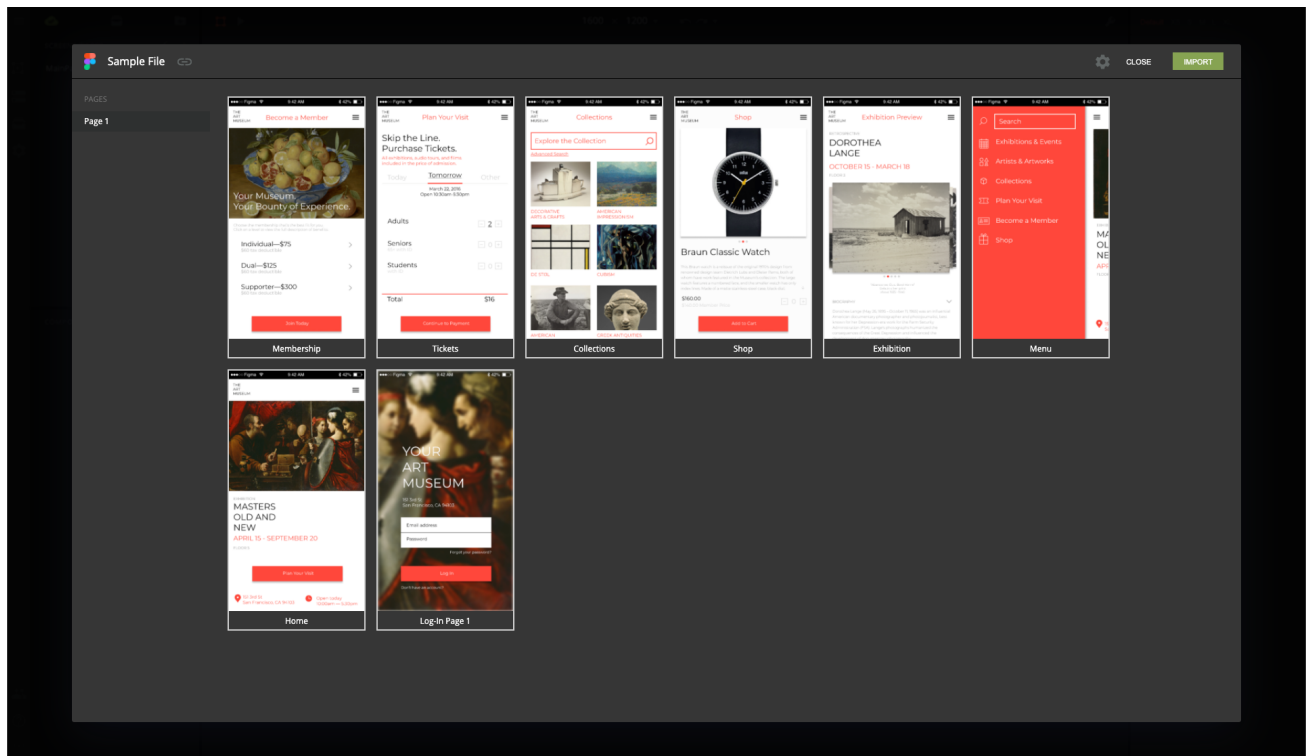
THE PROCESS

The Allcancode Platform is an integrated environment and a series of tools that support and accelerate the full software development process from design to delivery. Our approach is to:

- Simplify the most complicated steps so that even the non-experienced in coding can follow them. Examples are laying out the User Interface layout and writing the application logic.
- Automate the most tedious and error-prone steps to save time and resources. Examples are packaging mobile apps for the stores and publishing a web app to a web server.

The key points of the Allcancode platform:

- **Future-proof.** There is no lock-in to proprietary technologies as the platform generates high-quality human-readable and maintainable code in popular frameworks and programming languages. We rapidly support framework updates and emerging technologies (e.g., new mobile OS features).
- **No limits.** Users can build custom User Interface layouts and application logic without any limitations from templates or prefabricated logic. They can also incorporate existing code and integrate with existing systems.
- **Learn in days.** Even the non-experienced in coding can learn to build applications in days.



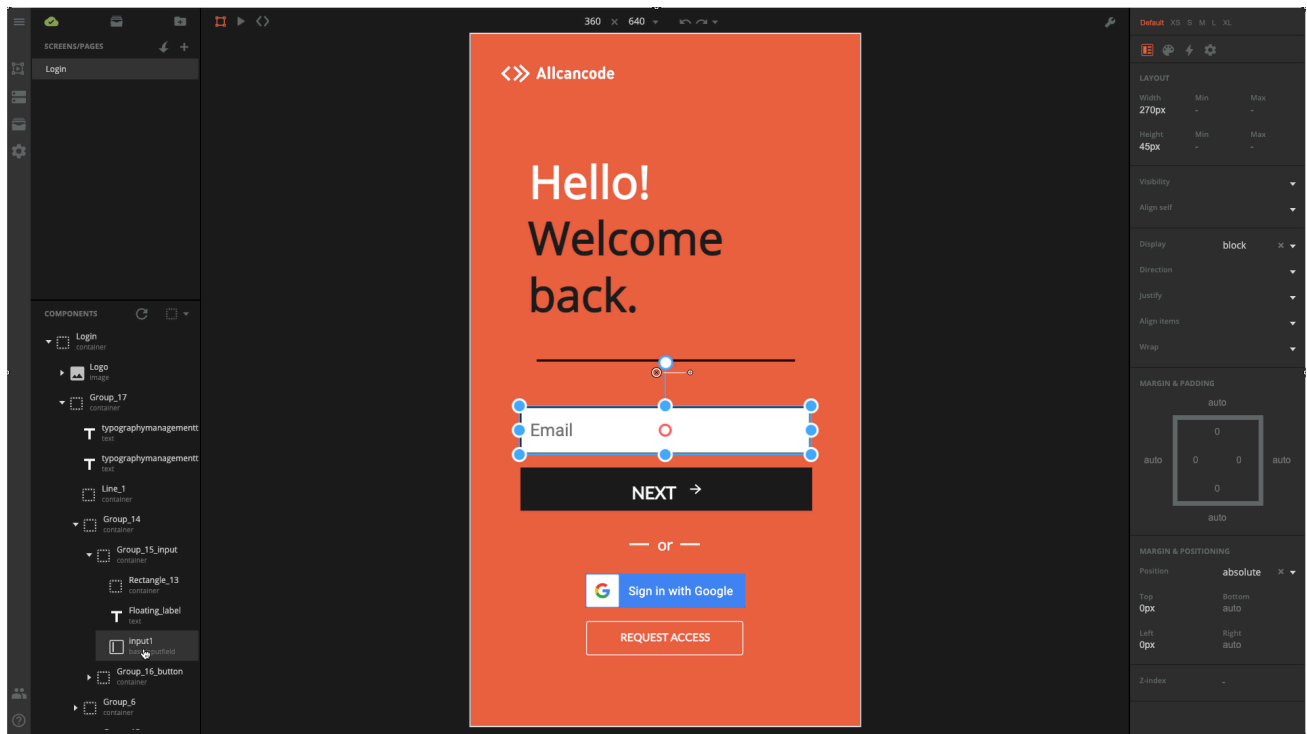
IMPORT DESIGNS

One of the biggest pains in User Interface development is the design hand-off to developers. It is time-consuming as it requires reading and translating to code numerous properties such as colors, font-sizes, margins, paddings, and sizes in general. Human errors are the rule, and designer reviews result in tons of changes that the developers need to go back and perform. Available tools fail to translate designs into usable code.

Our approach is different as we import designs from [Figma](#) (support for Adobe XD and Sketch will follow) into our design tool (presented in the next section) where users perform the following tasks:

- Adjust layout to compensate for discrepancies in aspects such as typography.
- Identify components such as input fields in place of designer shapes.

The platform keeps references to the original Figma file so that changes in that file can be re-imported automatically provided that they do not alter the structure.

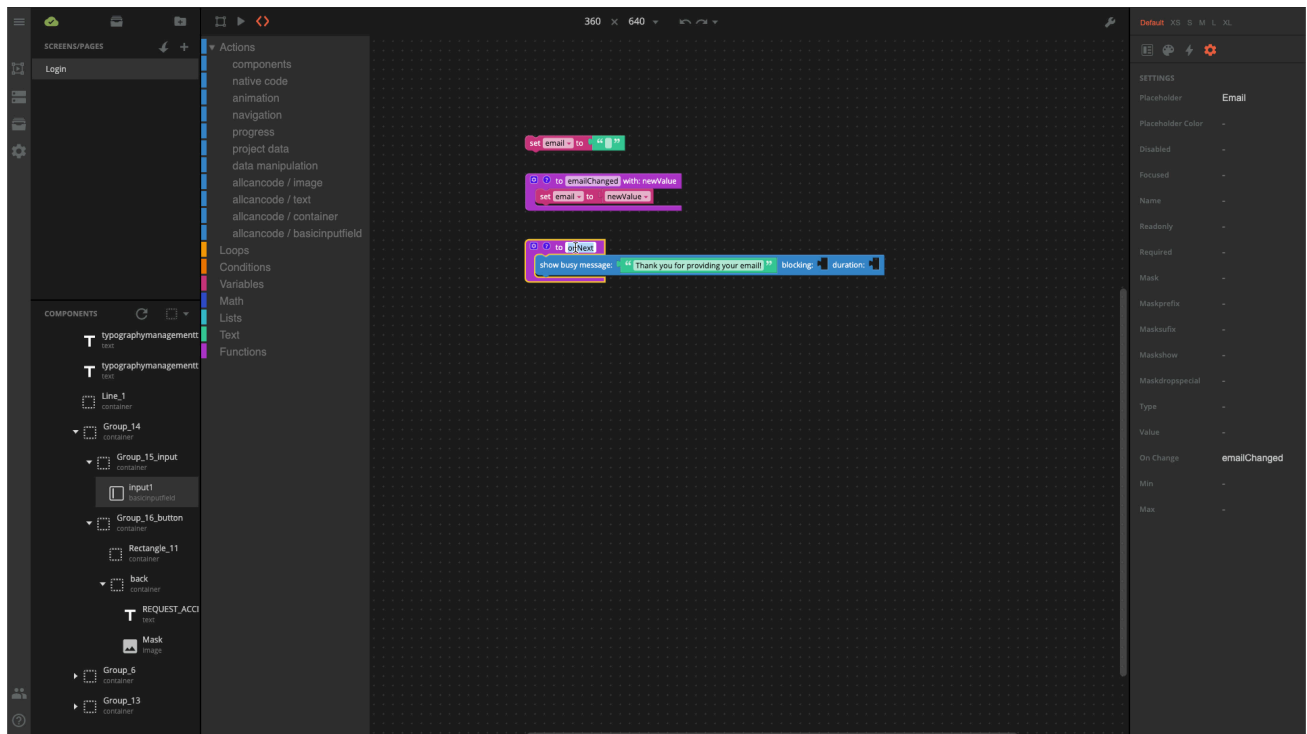


LAYOUT THE USER INTERFACE

Modern custom User Interfaces are rich both in terms of layout and interactivity. Coding them by hand is too challenging and error-prone; therefore, we need visual tools. The Allcancode Platform offers a comprehensive UI design tool whether layouts have been imported from Figma (see the previous section) or built from scratch.

The tool presents the pages of a web application or the screens of a mobile app, their structure, and their contents' styling properties. A full preview adapts to various device sizes. It enables users to layout the most demanding User Interfaces visually. There is a common approach for both web and mobile apps, which is closer to web development.

The platform presents libraries of available UI components for the framework of choice. However, users are encouraged to build their components and simplify developing complicated layouts by dividing them into the comprising elements they can make independently and reuse in the current and other projects. The latter capability enables the development of libraries or standard User Interface components shared among various applications for an organization as a comprehensive design system.

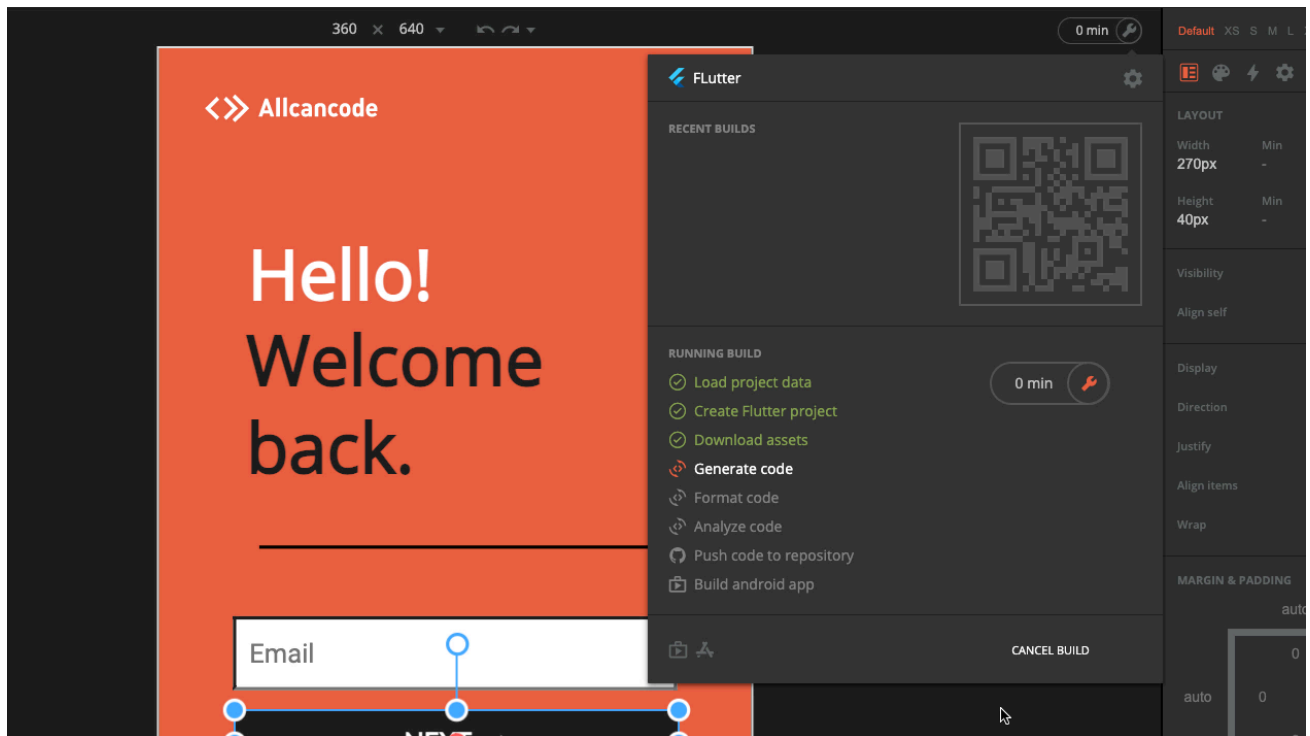


WRITE THE LOGIC

One of the Allcancode Platform's core capabilities is generating code for different programming languages and frameworks. To make that possible, we need to write the logic in an abstract way that still expresses all concepts related to coding in general (e.g., conditions, loops) and frameworks in particular (e.g., routing, data-binding, data stores, reactive behavior, API integration). We chose to extend Blockly by Google, a block-based language that is the standard for most STEM education content, and millions of students worldwide start to learn from the primary school years.

The platform includes libraries for form validation, date/time manipulation, and other everyday tasks, plus integrations with any REST API. Existing code can be easily incorporated, enabling a hybrid development model (block- and text-based). Apart from front-end logic, users can also develop middle-ware back-ends that integrate with existing systems.

A full versioning system automatically records all changes in both code and User Interface layouts and allows returning to any point of time similar to Google Docs.



GENERATE CODE AND DELIVER

At the end of the software production process, we need to generate code in to a Git Repository ([Github](#)), which is human-readable and -maintainable and finally package and deliver the application to its end-users.

The Allcancode Platform generates code for the most popular frameworks: [React](#) (v16+), [React-Native](#) (v0.63+), [VueJS](#) (2.x & 3.x), [Angular](#) (v9+), [Flutter](#) (1.22+). Code is based on the best practices specified by the developers of each framework, and the platform is always up-to-date with their latest versions.

Web applications can get automatically deployed to any server with FTP/FTPS access, Firebase Hosting, and Azure Web Apps. Mobile apps can automatically get built as independent Android Apps that can be downloaded directly from the platform's servers, packaged, signed, and sent to Google Play and Apple App Store.

Middle-ware back-ends are converted to [Node.js](#) servers with database and API connectivity and automatically deployed to [AWS](#), [Google Cloud](#), and [Azure](#) cloud providers as functions or on the corresponding compute services.

Let's build.

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