



**APP INVENTION:** Kevin Butler (left) and James Green (right) work together at the Hidden Genius Project to code their app.

friends would hire James to fix up their kicks, earning him up to \$100 for each repair.

After dropping out of high school, James continued restoring shoes for his friends to make money. But then James' barber mentioned that his son was into *coding*—writing instructions that allow computer software to function. He knew James had dropped out of school and suggested that he check out the Hidden Genius Project to see if he'd like to learn how to code too.

### SNEAKERS PLUS STEM

In June 2016, James was accepted into Hidden Genius. He started learning about coding. Three months later, he had gained confidence in himself and decided to enroll at a different high school while continuing to learn about STEM and business at Hidden Genius.

James soon realized he was more interested in applying technology in business ventures than

in actually coding software himself. His mentors saw that James loved sneakers and suggested he consider how technology could help sneakerheads like himself.

James started by thinking about problems he'd encountered in the past—like when the cobbler messed up his vintage sneakers.

Another time, James repaired someone's shoes, but after returning them, he found out that the online payment he received was fake. These bad experiences gave him an idea: An app to help sneakerheads work with verified sneaker artists.

### TECH TEAMMATES

To create the software, James turned to a fellow Hidden Genius member, 18-year-old Kevin Butler. He's a self-taught coder who gained an interest in computing by taking apart old computers and putting them back together.

Kevin learned coding from books his mom used when she was taking computer science classes. "When James came to me, I said: This could be big! This is a winning idea!" says Kevin.

The duo began designing their app by thinking about its *interface*—what the app would look like to someone using the program (see *How to Develop an App*, p. 9). They decided to create a social-media platform, similar to Facebook—but for sneakerheads. People could set up profiles to discuss and schedule sneaker repairs or customizations with verified vendors. After the job was complete,

both customers and vendors could then rate and review each other, so people using *FixMyKicks* could see how past transactions went.

Next, James and Kevin set out to write the *front-end code* that would create what the program actually looked like. *Front-end code* determines the *user experience*—how a person interacts with and navigates the app. To make these features work, they'd also need to write *back-end code*, which controls the data the app needs to function. "The front-end is like what a house looks like from the outside," explains Kevin. "The back-end is like the bricks that keep the structure of the house standing."

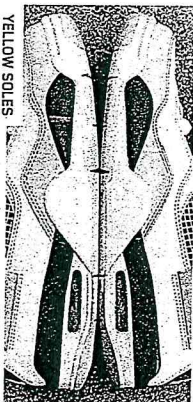
### HIGH-TOP TRENDS

James and Kevin have been working on their app for the past year. Their goal is to make it available in the Apple App Store in 2019.

Today, the App Store contains more than 2.2 million apps. Some are more successful than

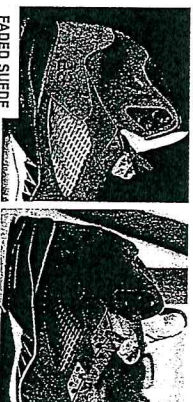
## SNEAKER SOLUTIONS

A professional sneaker-restoration artist and owner of Raleigh Restorations in North Carolina explains some common techniques used to repair and customize sneakers.



### YELLOW SOLES

Exposure to sunlight and moisture causes *polyurethane*—a type of plastic—to yellow. Restorers can apply a chemical solution called "Ice Cream" that, when exposed to ultraviolet (UV) light, reverses the discoloration.



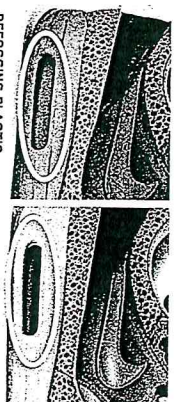
### FADED SUEDE

Regular wear and exposure to water, dirt, and UV light can cause suede to lose its softness and fade. Restorers use special brushes to clean and replenish the material's texture. Then they dye it. Suede is porous, so it readily soaks up dye.



### PAINT PROBLEMS

Over time, paint on the midsole of a shoe flakes and cracks. To remove the old paint before repainting, restorers apply a product called "Milestone Magic." The solvent dissolves paint without corroding the foam material underneath.



### DEOXYGENATING PLASTIC

Moisture collects on the inside of clear air-filled plastic parts of a shoe, making them appear foggy. Restorers use a hairdryer to heat the water, causing it to evaporate. This clears the fog from the plastic.

## CORE QUESTION

How is James following the steps of the app development process to create *FixMyKicks*? Cite evidence from the story to support your answer.