

BEST CARS PROJECT REPORT

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INTRODUCTION

OBJECTIVE

Create an android application that gives information on the top 3 cars.

SPECIFICATION

- Price, specs, and location must be included

ASSUMPTION

- Top three 2016 cars: Chevrolet Impala, Mazda Mx-5 Miata, and Ford Focus

SUMMARY

For this project, I first brainstormed what the top 3 cars would be. Then, I sketched out how the android application will show the information. After that, I programmed the splash screen, page transitions, button links, and back buttons. As a result, the android application takes the user to Edmunds.com when the buttons for the price, specs, buying location, photographs, and customer reviews are clicked on. Personal comments will be viewed within the application. Thanks to this project, I know how to make the application fit on different screen sizes, change button colors when tapped on, and make transitions to websites and pages using buttons.

TECHNOLOGIES USED

- **Programming Language:** Java
- **Markup Language:** XML
- **Integrated Development Environment:** Android Studio

PROCESS

ANALYSIS

Since this is a project that I did on my own time, I came up with my own requirements. When buying cars, a person must see the price, specs, and buying location. Photographs, customer reviews, and personal comments are helpful but not required. I decided to include optional information because more information helps in choosing cars.

DESIGN

After coming up with the requirements, I sketched what application pages to include, how those pages will look like to the user, and how a page will transition to another page. Eventually, I decided to use buttons to make the page transitions and take users to Edmunds.com for viewing the price, specs, photographs, customer reviews, and buying location. The personal comment will be viewed within the application when the button for it is tapped on. I also included back buttons to take the user back to the previous page as a nice thing to have. For button appearance, I made each button change colors when the user taps on it to confirm that the user did tap that button.

PROGRAMMING

I programmed the application to first show a splash screen for about 3 seconds when starting up using Threads. Then, it will take the user to the menu so that he or she can click on which car to view. After choosing the car to view, the application transitions to the page where 6 buttons in a 3x2 grid is shown. When the user clicks on the personal comment button, the application takes the user to another page to view the personal comment. The other buttons will take the user to Edmunds.com, since those types of information change often. Transitions are made using View.OnClickListener.

TESTING

When I coded an application or button behavior, I test that behavior by building the application with Android Studio and testing it out on my android device. If it does not behave as I expect it to, I use Android Studio's debugging feature to identify the problem and then I modify the code causing that problem. I did this for multiple times until the application finally does what I expect it to do.

RESULT

After multiple tests and debugging, I finally got the application to work. The application shows a splash screen for about 3 seconds on startup, the back buttons take the user to the previous page, the personal comment transitions to the personal comment page within the application, the car selection buttons transition to the page of their respective car within the application, and the button links take the user to Edmunds.com for viewing the car's price, specs, photographs, customer reviews, and buying location.

BEST CARS

DESCRIPTION

This android application gives the price, specs, photographs, buying location, personal comments, and customer reviews of three 2016 car models: Chevrolet Impala, Ford Focus, and Mazda Mx-5 Miata.

FEATURES

- Splash screen appears for about 3 seconds when starting up the application.
- Car selection buttons take the user to their respective car page.
- Buttons for the car's price, specs, photographs, customer reviews, and buying location will take the user to Edmunds.com.
- The button for personal comments will take the user to the personal comment page within the application.
- Back buttons take the user to the previous page.

HOW TO RUN

See [README.md](#) in my GitHub repository.

CONCLUSION

CHALLENGES

This was my first android application. So, the challenges were figuring out how to use Android Studio to make my application, how to program the buttons in Java to transition to another page or to a website, and making buttons change color when the user taps on them.

WHAT I LEARNED

Thanks to this project, I have a solid understanding in using Android Studio features to develop android applications, using `View.OnClickListener` to make the buttons transition to another page or to a website, creating multiple layouts to fit the application on different screen sizes, and making xml files to have buttons change color when tapped on.