THE MOCK UP OF PICK-UP AND DELIVER MOBILE APPLICATION

Caner Karaca¹, Hasan Ören¹

Abstract. In this research we aimed to create a motorcycle pick-up and delivery application for the city of Vila Real in Portugal. Firstly, we searched for similar applications in the market that fit our concept to find features that can be implemented in our application. So we listed 17 mobile applications in our first report with their key features. According to the first report, we declared the main features of our application and created a mock-up using Figma. In this report, we presented our mock-up work as the result of our research.

Keywords: Motorcycle, delivery, pick-up, maintenance, gps, navigation, logistics, mobile app, design, tracking, market research, mobility.

1 Introduction

The history of delivery apps traces back to the rise of the on-demand economy and the surge in smartphone usage, driven by the demand for convenient and speedy delivery services. This evolution led to the inception of online food ordering services in the mid-1990s.

Delivery apps, initially focused on food delivery, have redefined the way people access goods and services. They prioritize user-friendly experiences, offer detailed product catalogs, secure payments, and real-time order tracking, ultimately enhancing customer satisfaction. Collaborating with local businesses, they expand their offerings and support local economies.

Additionally, these apps have created job opportunities and sustained user engagement despite a slight drop in installations. In 2021, global sessions of food delivery apps increased by 58% YoY, with further growth in 2022, showing a 212% increase compared to 2019 (SHRESTHA, 2022).

Based on this historical context, our research and solutions were developed. We analyzed existing delivery apps, identified their key features, and designed a versatile, user-friendly solution that can be customized or extended to meet specific needs. Our work is a reflection of the evolving landscape of delivery services.

2 State of The Art

Here's the 17 applications we examined before preparing the mock-up work. You can find more information about them in the first report:

Glovo: A mobile app platform for on-demand delivery and courier services, Glovo is based in Spain. Doorstep delivery is made possible through Glovo, which offers a wide range of products and services, such as food, groceries, pharmaceuticals, electronics, and more. Real-time tracking and placing orders via the app is possible with local stores and eateries(GLOVO, 2023).

Eat Sleep Ride: An app and website called Eat Sleep Ride unites motorcycle riders, helping them track their adventures, discover new routes, and share their stories with others. In case of an emergency, the crash detection feature will alert your contacts(EAT SLEEP RIDE, 2023).

Rever: Rever is an app and a website that helps you plan, track, and share your motorcycle, snowmobile, and off-road adventures. It also

lets you discover new routes, join challenges, and connect with other riders around the world (REVER, 2023).

mo.ride: mo.ride is an app that connects you with your motorcycle and provides you with various features and data. You can use the app to log your rides, customize your dashboard, track your stats, and manage your maintenance tasks. You can also use the app with mo.unit or mo.hub, which are devices that allow you to control your motorcycle's lights, signals, and other functions (MO.RIDE, 2023).

Diablo Super Biker: Diablo Super Biker app is a mobile application designed for motorcycle enthusiasts and riders. This app is associated with Pirelli, a well-known tire manufacturer, and it is primarily focused on providing motorcycle riders with features related to tracking their rides, analyzing riding data, and enhancing their overall riding experience (DIABLO SUPER BIKE, 2023).

Harley-Davidson: The Harley-Davidson app is an app that helps users experience the world of Harley-Davidson. Users can use the app to plan, navigate, and share their rides, connect with other riders and dealers, and access their membership benefits (HARLEY DAVIDSON, 2023).

Deliveroo: Deliveroo is a British food delivery company that operates through a mobile app and website. The Deliveroo app allows users to order food from a wide range of local restaurants, cafes, and eateries and have it delivered to their doorstep (DELIVEROO, 2023).

GotrackApp: GoTrackApp is mobile application for managing your business delivery and pickup services, you can use GoTrackApp for your businesses like Pickup & Delivery, Beauty Services, Repair Services, Home Services, Health and Well Being and any type of Businesses that needs to monitor daily activity task in realtime (GO TRACK, 2023).

PICKUP Pro: PICKUP: Pro is a delivery service app that allows

you to build your own business by using your own pickup truck, van, box truck, or muscle vehicle to deliver items from top retailers (PICK UP PRO, 2023).

Track-POD: Track-POD Delivery Driver App is an app that allows users to manage their deliveries and collections, track their drivers and routes, capture digital proof of delivery, and connect with their customers. It is a part of Track-POD Delivery Management Software, which is a cloud-based solution for small and mid-sized businesses (TRACK POD, 2023).

OptimoRoute Driver: It's an app that helps users complete their daily routes efficiently and easily. It is an extension of OptimoRoute, which is a web-based tool for route optimization and schedule planning for delivery and field service businesses (OPTIMO ROUTE, 2023).

Droppath Route Planner: Droppath Route Planner is an app that helps you plan, optimize, and manage your delivery routes. You can use the app to add destinations by scanning barcodes, searching for addresses, importing CSV files, or using your current location. You can also use the app to find the fastest route for your type of vehicle, get directions from various navigation apps, mark your progress, and export or print your data (DROPPATH ROUTE, 2023).

Uber-Driver: Drive & Deliver: Uber-Driver: Drive & Deliver is an app that allows you to earn money by driving or delivering with Uber (UBER DRIVER, 2023).

My Driver App: My Driver App is a mobile application that allows drivers to find and book parking spaces, get traffic updates, and access other useful features (MY DRIVER, 2023).

Point Pickup Driver: Point Pickup Driver app is a mobile application that allows drivers to find and deliver orders from the same store location to nearby customers (POINT PICKUP, 2023).

Zippykind Delivery Driver: Zippykind Delivery Driver is a mobile application that allows drivers to manage their deliveries and get to where they need to be. It is part of the Zippykind delivery software that helps local delivery businesses streamline their operations and offer their customers an "Uber-like" experience (ZIPPYKIND, 2023).

WooDelivery Driver: WooDelivery is a software suite for delivery management and route optimization. It offers a range of benefits for businesses looking for hyperlocal business automation and provide an efficient delivery experience to their customers (WOODELIVERY, 2023).

The most common features that those applications have are real-time tracking, estimated time of arrival, trip or delivery history, proof of delivery, maintenance and community. You can find specific features in the first report we prepared.

3 Mock-up

According to our research we have ended up some results which are feasable for a basic pick-up and delivery application and some more extensions.

The mock up has five section: Tasks, Routes, Reports, Maintenance and Profile.

Tasks: The tasks that are provided by a service or you can insert manually but we considered that they should be provided by a service.

Routes: The routes that when you select a task or tasks in the tasks section it will be created the best route automaticly by optimisation algorithm.

Reports: In this section you can select a date range to see your reports like earned Money and travelling distance.

Maintenance: In this section you can follow your motorbike for maintenance. It gives you some information or some warnings.

Profile: In this section you can see or change your informations about yourself.

3.1 Tasks

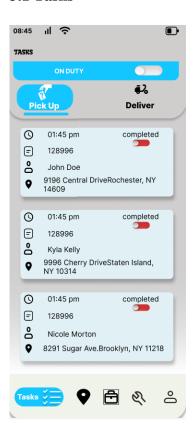


Image 1: You can see the tasks that you can do. Tasks section contains two tabs: Pick-up and Deliver.



Image 2: The tasks that you already picked up are ready to deliver. You can start deliver by selecting one or more of them

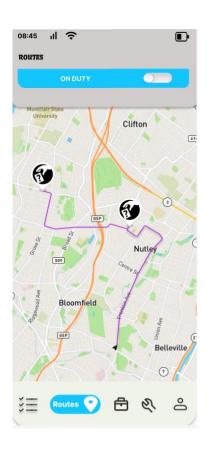


Image 3: You can see the points that you should go and pick up.

3.3 Reports

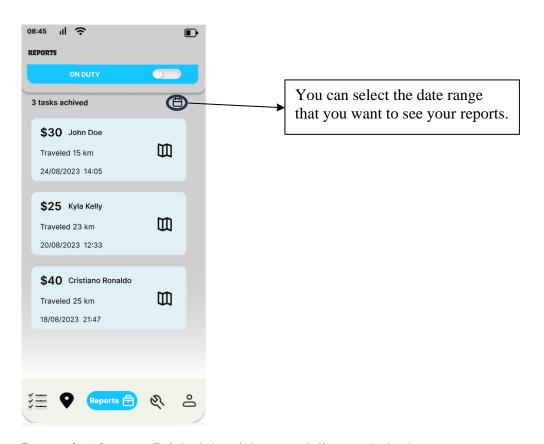


Image 4: After you finished the pick-up an deliver tasks both you will be able to follow the reports in the reports section.

3.4 Maintenance

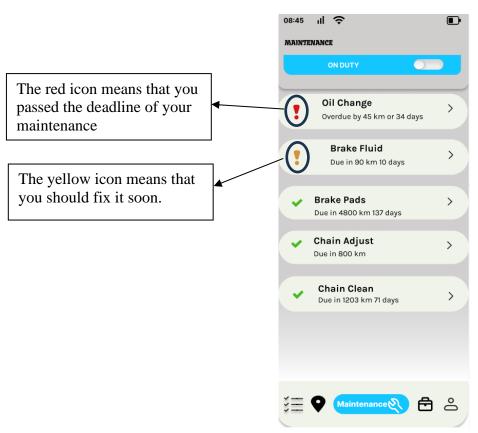


Image 5: You can track the information about yourmotorcycle before it breaks.

3.5 Profile

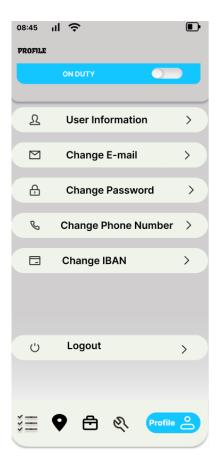


Image 6: You can see and change your information.

4 Conclusions

This report is about problems and solutions related to pick-up and delivery applications. If you're thinking of creating such an app, you can follow the instructions and solutions outlined here. We've come up with a basic task app for "pick-up and deliver" tasks, which users can use easily and efficiently, as shown in the results section.

Moreover, we can add more features like "proof of delivery," "communication templates," and others, as explained in the extensions section of the big report. This can enhance the app's functionality. If you're planning to design an app for various tasks and professions, remember that each profession may require different features. While some features might be common, you'll need to fundamentally adapt the app's structure. Otherwise, it could end up with unnecessary functions.

References

- Smith, T.F., Waterman, M.S.: Identification of Common Molecular Subsequences. J. Mol. Biol. 147, 195–197 (1981)
- May, P., Ehrlich, H.C., Steinke, T.: ZIB Structure Prediction Pipeline: Composing a Complex Biological Workflow through Web Services. In: Nagel, W.E., Walter, W.V., Lehner, W. (eds.) Euro-Par 2006. LNCS, vol. 4128, pp. 1148–1158. Springer, Heidelberg (2006)
- 3. Foster, I., Kesselman, C.: The Grid: Blueprint for a New Computing Infrastructure. Morgan Kaufmann, San Francisco (1999)
- Czajkowski, K., Fitzgerald, S., Foster, I., Kesselman, C.: Grid Information Services for Distributed Resource Sharing. In: 10th IEEE International Symposium on High Performance Distributed Computing, pp. 181–184. IEEE Press, New York (2001)
- Foster, I., Kesselman, C., Nick, J., Tuecke, S.: The Physiology of the Grid: an Open Grid Services Architecture for Distributed Systems Integration. Technical report, Global Grid Forum (2002)
- National Center for Biotechnology Information, http://www.ncbi.nlm.nih.gov
- SHRESTHA, Prashansa. Hunger for food delivery apps grows in 2022 against all odds. Available at https://www.adjust.com/blog/hunger-for-food-delivery-apps-grows-in-2022-against-all-odds/ Access in Jul 13 2023.
- GLOVO at App Store. Glovo Couriers. Available at https://apps.apple.com/pt/app/glovo-couriers/id1451416371 Access in Jul 13 2023.
- 9. EAT SLEEP RIDE at App Store. EATSLEEPRIDE Motorcycle GPS. Available at

- https://apps.apple.com/pt/app/eatsleepride-motorcycle-gps/id541036952 Access in Jul 13 2023.
- REVER at App Store. REVER-GPS motorcycle trips. Available at https://apps.apple.com/pt/app/rever-gps-viagens-de-motos/id975571447 Access in Jul 01 2023.
- 11. MO.RIDE. Mo.Ride. Available at https://www.mo-ride.de/en/mo-ride-app/ Access in Jun 15 2023.
- 12. DIABLO SUPER BIKER. Diablo Super Biker. Available at https://www.pirelli.com/tyres/en-ww/motorcycle/diablo-super-biker-app Access in Jun 22 2023.
- 13. HARLEY DAVIDSON. Harley Davidson App. Available at harley-davidson.com/pt/pt/content/h-d-app.html Access in Jul 8 2023.
- DELIVEROO. Deliveroo Rider. Available at https://riders.deliveroo.co.uk/en/apply Access in 11 Jul 2023.
- GO TRACK. GoTrack App. Available at https://gotrackapp.com/food-delivery-softwares.html Access in Jun 15 2023.
- 16. PICK UP PRO at App Store. Pickup:Pro. Available at https://apps.apple.com/us/app/pickup-pro/id1279613080 Access Jun 17 2023.
- TRACK POD. Track-POD Proof of Delivery. Available at https://apps.apple.com/us/app/track-pod-proof-of-delivery/id1242578215 Access in Jul 19 2023.
- OPTIMO ROUTE. OptimoRoute Driver. Available at https://apps.apple.com/us/app/optimoroute-driver/id1292045458 Access in Jul 25 2023.
- 19. DROPPATH ROUTE. Droppath Route Driver. Available at https://play.google.com/store/apps/details?id=tech.suzero.route Access in Jun 25 2023.
- UBER DRIVER. Uber-Driver: Drive & Deliver. Available at https://apps.apple.com/us/app/uber-driver-drive-deliver/id1131342792 Access in Jun 18 2023.
- 21. MY DRIVER. My Driver App. Available at https://play.google.com/store/apps/details?id=com.my.driver&hl=en_US Access in Jul 4 2023.
- POINT PICKUP. Point Pickup Driver. Available at https://apps.apple.com/us/app/point-pickup-driver/id1444146485 Access in Jun 22 2023.
- ZIPPYKIND. Zippykind Delivery Driver. Available at https://play.google.com/store/apps/details?id=zippykind.driver.app&hl=pt&gl=US Access in Jun 17 2023.
- 24. WOODELIVERY. Woodelivery App. Available at https://www.woodelivery.com/delivery-management/ Access in Jul 4 2023.