**App – Vehicle mate**

Vehicles now are more accessible and popular than ever. Many people have at least one vehicle of some type. Depending on what is going on in their lives their vehicle might be the last thing they think about because they might not realise that having a working efficient vehicle is necessary to be able to do things like go to work or to go to places they desire to go. They only realise this problem when something goes wrong. For example, they might realise one morning their MOT is about to run out and they are too busy working to get it done. Something like this can cause a lot of unnecessary stress that could have been avoided if they were notified in advance that it was coming up. Some people also just like easily knowing information on their vehicle, for example, they might want to know if their vehicle is fuel-efficient or if it is costing far more than it is worth.

Similar apps

1. Vehicle manager –

<https://play.google.com/store/apps/details?id=com.vh.vehiclemanager>

Checklist

* Multi-vehicle support – Yes
* Can do a variety of useful calculations (fuel efficiency, cost efficiency) – Yes
* Has a variety of variables (e.g. MPG, MPL) – Yes
* Saves user data for later use, can export user data/save online – Yes
* Turns user data into charts for easy comparison – No
* Ability to change GUI to suit user’s needs – No
* Keeps track of a variety of information on the vehicles(s) – Yes
* Notifies the user about useful information – Yes
* Ability to make notes – Yes
* Allows the user to make custom notifications for different vehicles – Yes
* Can share information onto social media – Yes

This app looks very good in theory, but it has a lot of bad reviews about different things going wrong. In some cases, people had the app not start for them making it completely useless. This app does support a wide variety of vehicles and keeps track of an awful lot of information on them. It also notifies the user when something needs to be done, for example, an oil change. Having it also the user the overall expense of the vehicle is very useful so the user can work out if the vehicle cost more than it is worth.

1. Vehicle manager – Services, Payments, Expenses –

<https://play.google.com/store/apps/details?id=com.ninetynineapps.vehiclemanager>

Checklist

* Multi-vehicle support – Yes
* Can do a variety of useful calculations (fuel efficiency, cost efficiency) – Yes
* Has a variety of variables (e.g. MPG, MPL) – No
* Saves user data for later use, can export user data/save online – Saves user data but cannot be exported
* Turns user data into charts for easy comparison – No
* Ability to change GUI to suit user’s needs – No
* Keeps track of a variety of information on the vehicles(s) – Yes
* Notifies the user about useful information – No
* Ability to make notes – No
* Allows the user to make custom notifications for different vehicles – No
* Can share information onto social media – No

This app only has one review, but it is a good review. The screenshots and description of the app make it look very good but not many people have used it yet.

1. Car management: car maintenance, vehicle manager –

<https://play.google.com/store/apps/details?id=aurumapp.carmanagement>

Checklist

* Multi-vehicle support – Yes
* Can do a variety of useful calculations (fuel efficiency, cost efficiency) – Has features on when to replace different parts but not on things like fuel efficiency.
* Has a variety of variables (e.g. MPG, MPL) – Has miles and kilometres
* Saves user data for later use, can export user data/save online – keeps track of users’ data but doesn’t allow for export
* Turns user data into charts for easy comparison – No
* Ability to change GUI to suit user’s needs – No
* Keeps track of a variety of information on the vehicle(s) – Yes
* Notifies the user about useful information – Yes
* Ability to make notes – Yes
* Allows the user to make custom notifications for different vehicles – Yes
* Can share information onto social media – No

The reviews for this are mostly 5 stars and it does seem to be a reliable app. But I believe it to be lacking because it mainly focuses on the replacing of parts rather than how it is currently running. It does what it is designed to do very well and does have some very useful features that the users seem to like.

1. My vehicle manager –

<https://play.google.com/store/apps/details?id=sssoftwares.myvehiclemanager>

Checklist

* Multi-vehicle support – Yes
* Can do a variety of useful calculations (fuel efficiency, cost efficiency) – Yes
* Has a variety of variables (e.g. MPG, MPL) – No
* Saves user data for later use, can export user data/save online – No
* Turns user data into charts for easy comparison – No
* Ability to change GUI to suit user’s needs – No
* Keeps track of a variety of information on the vehicles(s) – Yes
* Notifies the user about useful information – No
* Ability to make notes – Yes
* Allows the user to allow custom notifications for different vehicles – Yes
* Can share information onto social media – No

This app only has two reviews, but they are both pretty good. One says the adverts are annoying but that shouldn’t affect the usefulness of the app. The app looks fairly basic but has a lot of features making it seem very reliable.

1. Car manager – expense & fuel log –

<https://play.google.com/store/apps/details?id=com.nisi.carmanagement>

Checklist

* Multi-vehicle support – Yes
* Can do a variety of useful calculations (fuel efficiency, cost efficiency) – Yes
* Has a variety of variables (e.g. MPG, MPL) – It has miles, kilometres and litres.
* Saves user data for later use, can export user data/save online – Yes
* Turns user data into charts for easy comparison – Yes
* Ability to change GUI to suit user’s needs – No
* Keeps track of a variety of information on the vehicles(s) – Yes
* Notifies the user about useful information – Yes
* Ability to make notes – No
* Allows the user to make custom notifications for different vehicles – Yes
* Can share information onto social media – Yes

The reviews for this app are mostly positive but some people have complained about the premium (paid for) side of it not working as promised. This app does seem to be very good but not fully reliable. The GUI is designed to make it easy to understand and it displays some information in charts so the user can easily see what it is they want to see.

This app will be designed to keep track of a wide variety of user’s vehicles, so they do not have to worry forgetting useful information that could a lot of stress for them later on. it will notify users when different important things are coming up such as insurance renewal and MOT. It will also keep track of how much the vehicle is costing them by keeping a log on information such as fuel cost, replacement parts cost and general maintenance. The app should be designed to be as simple as possible to use and understand so any user can easily make use of all its features.

Some of the useful features the app should have are:

Multivehicle support,

User reminders including custom reminders,

Note keeping,

A variety of efficiency calculations,

Ability to export the user’s data.

The primary users of this app will be people who drive a lot and require their vehicle to be in good condition. This will be both people who drive as a job or just drive for fun/to get places.

The secondary users of this app are people who only drive casually meaning they do not really rely on their vehicle from day to day but are still interested in how their vehicle is doing and want to keep up to date with everything vehicle-related.

The tertiary users of this app are people who have some kind of share or stake-hold in a vehicle and want to make sure everything to do with it is up to date and the vehicle is working efficiently. People like a taxi company owner or a car renting service.

Name: David

Age: 40

Location: Luton

Education and employment: did not do too well at school due to not being able to pay attention to teachers. Worked ever since leaving school doing various jobs mainly driving people around or delivering items. Currently employed as a delivery driver who uses his own van to deliver items.

Family status: wife and three children.

Information source: internet, Facebook, BBC News, sun newspaper.

Online behaviour: he mainly uses his phone to access the internet when not driving but away from home. He uses his desktop when at home to play Facebook games and see what people are up to on Facebook.

Typical tasks: driving about delivering peoples items. When not working he’s not usually up to a lot other than doing various things on his desktop.

Goals: He is worried his van is not running as efficiently as it used to and is costing more than it is really worth. He is after an effective tool that can keep track of how much his van is really costing him and how fuel-efficient it really is.

Scenario: Today is the last day of the month and David it at home trying to relax. He starts worrying that his van has cost more than usual to run this month. He realises he has been using vehicle mate for the past few months to track how much he has spent on his van. He wonders if he could use vehicle mate to see how much his van cost this month compared to previous months.

|  |  |
| --- | --- |
| Actor: David | System: vehicle mate |
| Would like to use vehicle mate to see how much he has spent on his van this month compared to the previous months.  Open vehicle mate on his phone. |  |
|  | Present home page (vehicle selection page) |
| Click on the vehicle he wants to know about |  |
|  | Present overview of useful information about the vehicle |
| Click on vehicle cost |  |
|  | Present the most recent costs |
| Click compare |  |
|  | Present compare page |
| Enter the first-time span and second time span to compare |  |
|  | Present comparison of averages between the timespans |

Name: Samantha

Age: 30

Location: Peterborough

Education and employment: Did very well at school and decided early that she wanted to teach others. Studied teaching at university and ended up becoming a teacher at a middle school that is about 40 miles away.

Family status: Husband

Information source: Internet, radio, various newspapers.

Online behaviour: browses Facebook and twitter when not working and frequently uses WhatsApp to talk to family and friends. When at home occasionally watches funny YouTube videos on various things. Not very technical minded but finds it easy to learn new things.

Typical tasks: spends most of her time either teaching or planning lessons. When at home usually has T.V on in the background playing different quiz shows and soaps while doing various work-related things.

Goals: Wants an effective tool that reminds her when her about important things to do with her car because she needs her car for work and cannot have somethings like her MOT running out without her knowing.

Scenario: Samantha recently got a new car and wants to add the new car to vehicle mate and have it remind her two weeks before the MOT, insurance and tax are due. She would also like to remove her old car so she will no longer get reminders about it.

Title: Remove old car

|  |  |
| --- | --- |
| Actor: Samantha | System: vehicle mate |
| Would like to remove her old car from vehicle mate.  Open vehicle mate on her phone. |  |
|  | Present home page (vehicle selection page) |
| Click on relevant vehicle |  |
|  | Present overview of useful information about the vehicle |
| Click round button at bottom right |  |
|  | Present menu |
| Click delete vehicle button |  |
|  | Present are you sure overview |
| Click yes |  |

Title: Add a new car

|  |  |
| --- | --- |
| Actor: Samantha | System: vehicle mate |
| Would like to add her new car to vehicle mate and get it to remind her two weeks before her MOT, insurance and tax is due.  Open vehicle mate on her phone. |  |
|  | Present home page (vehicle selection page) |
| Click add vehicle button |  |
|  | Present add vehicle page |
| Fill in relevant boxes with cars information and click add |  |
|  | Saves cars information and presents the home page |
| Click relevant car |  |
|  | Present overview of useful information about the vehicle |
| Click round button at bottom right |  |
|  | Present menu |
| Click reminder settings |  |
|  | Present reminder settings |
| Click remind me 2 weeks in advance |  |
|  | Present reminder settings with the changed value |

Home page

Already added vehicles.

Add a new vehicle

Settings button

Both the primary and secondary research shows that multivehicle compatibility is important, so the home page will only be used to select between vehicles. The other pages will also be designed in such a way that the user can go back and select a different vehicle easily if they desire so.

Settings page

Back button to home page

The settings page will hold all the different things the user can change.

It will also contain different options for the GUI so the user can change it to their will.

Overview Vehicle information page

Back button to home page

Overview on different information about the vehicle

Detailed vehicle information page

Back button to Overview Vehicle information page

More detailed information about what the user clicked on in overview of vehicle information.

Add new vehicle page

Back button to home page

A form where the user can fill out different information about their vehicle

Evaluation

Ease of use

The first thing that will be evaluated is how easy the app is to use. It is very important that the users are able to use all the features of the app easily otherwise they will be more likely to use a different app even if it has fewer features.

In order to get a reliable result, a variety of at least 10 people who drive at least one vehicle will be given a prototype of the app and a checklist of things to do. They will also be allowed to do anything they feel would be useful to them. After using the app, they will be asked for their honest opinion on how the app is designed and what they believe could be done in order to make the app easier to use. Depending on their response the app will be redesigned. If a lot of things need to be changed this evaluation will be run again with the new design in order to remove any issues before deployment.

The checklist of tasks to perform will be:

Add a new vehicle of the user’s choice, add a made-up journey, add a custom reminder, make a custom note and to modify the settings to their choosing.

If the user can complete the checklist and any of their own goals without having any issues this will definitely count as a success. It will even count as a success if the user only has very few small problems that can be easily fixed.

Effectiveness

In order to evaluate the effectiveness of the app, the user will be asked a few questions after the ease of use evaluation. The questions asked will be:

On a scale of 1 to 10 (1 being lowest), how useful do you feel the app will be for you,

On a scale of 1 to 10 (1 being lowest), how likely are you to regularly use this app,

Would you recommend this app to a friend?

The effectiveness of the app will also be evaluated after the app is published. The users of the app will be encouraged to post their reviews of the app on the app store so that they can be read through and used in order to improve the app.

Efficiency

Evaluating the efficiency of the app is an ongoing battle because the app will be changing constantly depending on the users wants and needs. In order to evaluate the efficiency of the app once the app is released the comments on it will be considered and the app will be changed accordingly. The efficiency of the app will also be tested when new features are being added to make sure that everything is always running smoothly.

**Appendix**

Questions

Age –

Gender -

1. Do you drive more than one vehicle?
2. Do you rely on the vehicle(s) for day to day life?
3. Do you think the app should have multicar support?
4. Do you drive an electric vehicle?
5. Would you like the app to support electric cars?
6. Would you like the app to have the ability to add your own units?
7. Would you like the interface to be customisable (e.g. colour changes, font changes etc)?
8. Would you like to be able to export your data/save it to the cloud?
9. Do you prefer simplistic interfaces or bright and colourful ones?
10. What are some key features you think the app should have?
11. Are there any other questions you think would be important to ask?

Results

Age – 48

Gender – male

1. Do you drive more than one vehicle?

Yes.

1. Do you rely on the vehicle(s) for day to day life?

Yes.

1. Do you think the app should have multicar support?

Yes.

1. Do you drive an electric vehicle?

Why would I want to?

1. Would you like the app to support electric cars?

How many MPG does an electric car do?

1. Would you like the app to have the ability to add your own units?

Not really necessary long as it can do the standard MPG and Litres per 100km.

1. Would you like the interface to be customisable (e.g. colour changes, font changes etc)?

Yes, as this would appeal to Apple users.

1. Would you like to be able to export your data/save it to the cloud?

It would be good if data could be stored in the cloud in case of phone change or loss.

1. Do you prefer simplistic interfaces or bright and colourful ones?

Simple is best unless you own an iPhone.

1. What are some key features you think the app should have?

Key features could be MOT due date for each vehicle as well as Tax and servicing. Also, obviously MPG.

1. Are there any other questions you think would be important to ask?

Can't think of any other questions.

Age – 43

Gender – male

1. Do you drive more than one vehicle?

Yes.

1. Do you rely on the vehicle(s) for day to day life?

Yes.

1. Do you think the app should have multicar support?

Yes.

1. Do you drive an electric vehicle?

Yes.

1. Would you like the app to support electric cars?

Definitely.

1. Would you like the app to have the ability to add your own units?

I think this would over-complicate it however I think MPG etc is an outdated measure and MP£ would be a far more useful number.

1. Would you like the interface to be customisable (e.g. colour changes, font changes etc)?

To a small degree only (i.e. font /UI colour and size).

1. Would you like to be able to export your data/save it to the cloud?

My ideal app would be cloud backed for multi-device use.

1. Do you prefer simplistic interfaces or bright and colourful ones?

Clean, simplistic and not harsh to the eyes. Dark options.

1. What are some key features you think the app should have?

Score comparison sharing (i.e. boast on Facebook), easy ability to change tariff/ fuel costs and set the cost change to a date, friend league tables, league tables by vehicle, league tables by fuel type, service reminders, mot reminders, location sensing (e.g. if it thinks you have been to a filling station ask for details by push notification), automatic price setting by filling station location or electricity tariff.

1. Are there any other questions you think would be important to ask?

Can’t think of anything I will mull it over.

Age – 48

Gender – male

1. Do you drive more than one vehicle?

Yes.

1. Do you rely on the vehicle(s) for day to day life?

Yes.

1. Do you think the app should have multicar support?

Yes.

1. Do you drive an electric vehicle?

No.

1. Would you like the app to support electric cars?

Yes, could work out miles against battery usage.

1. Would you like the app to have the ability to add your own units?

Sort of. Being able to switch between miles and kilometres is the only need I can see.

1. Would you like the interface to be customisable (e.g. colour changes, font changes etc)?

Would be nice but not the end of the world if it doesn’t.

1. Would you like to be able to export your data/save it to the cloud?

Export to a spreadsheet or similar could be a good idea.

1. Do you prefer simplistic interfaces or bright and colourful ones?

Simplistic interface, not lots of options that never get used.

1. What are some key features you think the app should have?

Ability to make comparisons with manufacturers claimed fuel consumption figures. Being able to compare with other app users for the same vehicle type. Nearby garage fuel prices by current location (user inputted/crowdsourced data?).

1. Are there any other questions you think would be important to ask?

Can’t think of any off the top of my head.

Age – 46

Gender - Female

1. Do you drive more than one vehicle?

No.

1. Do you rely on the vehicle(s) for day to day life?

Yes.

1. Do you think the app should have multicar support?

Yes.

1. Do you drive an electric vehicle?

No.

1. Would you like the app to support electric cars?

Yes.

1. Would you like the app to have the ability to add your own units?

No.

1. Would you like the interface to be customisable (e.g. colour changes, font changes etc)?

No.

1. Would you like to be able to export your data/save it to the cloud?

Yes.

1. Do you prefer simplistic interfaces or bright and colourful ones?

Simplistic Interfaces.

1. What are some key features you think the app should have?

A reminder of when Mot/service/tax is due.

1. Are there any other questions you think would be important to ask?

No, I think it’s all be covered.

Age – 49

Gender – M

1. Do you drive more than one vehicle?

Yes.

1. Do you rely on the vehicle(s) for day to day life?

Yes.

1. Do you think the app should have multicar support?

Yes.

1. Do you drive an electric vehicle?

No.

1. Would you like the app to support electric cars?

N/A.

1. Would you like the app to have the ability to add your own units?

Yes.

1. Would you like the interface to be customisable (e.g. colour changes, font changes etc)?

No.

1. Would you like to be able to export your data/save it to the cloud?

Yes.

1. Do you prefer simplistic interfaces or bright and colourful ones?

Simple.

1. What are some key features you think the app should have?

Make, model, CC, fuel, live fuel cost data scraped from suppliers, average speed (manual or GPS input), urban/motorway/rural.

1. Are there any other questions you think would be important to ask?

Depends on who the target audience is and what data is to be used for and how accurate needs to be.

Age – 49

Gender – Female

1. Do you drive more than one vehicle?

Yes, 4 different cars.

1. Do you rely on the vehicle(s) for day to day life?

Yes.

1. Do you think the app should have multicar support?

Yes.

1. Do you drive an electric vehicle?

No.

1. Would you like the app to support electric cars?

No.

1. Would you like the app to have the ability to add your own units?

Yes.

1. Would you like the interface to be customisable (e.g. colour changes, font changes etc)?

No.

1. Would you like to be able to export your data/save it to the cloud?

No.

1. Do you prefer simplistic interfaces or bright and colourful ones?

Either.

1. What are some key features you think the app should have?

Make and model of car.

1. Are there any other questions you think would be important to ask?

10 mileage in car usage.

Age – 28

Gender – female

1. Do you drive more than one vehicle?

Yes.

1. Do you rely on the vehicle(s) for day to day life?

Yes.

1. Do you think the app should have multicar support?

Yes.

1. Do you drive an electric vehicle?

No.

1. Would you like the app to support electric cars?

Yes, could be useful for the future.

1. Would you like the app to have the ability to add your own units?

No.

1. Would you like the interface to be customisable (e.g. colour changes, font changes etc)?

I am colour blind so a feature for that would be great.

1. Would you like to be able to export your data/save it to the cloud?

Yes.

1. Do you prefer simplistic interfaces or bright and colourful ones?

Simplistic.

1. What are some key features you think the app should have?

Note keeping. Reminders.

1. Are there any other questions you think would be important to ask?  
   Can’t think of any.

Age – 58

Gender – Other

1. Do you drive more than one vehicle?

No.

1. Do you rely on the vehicle(s) for day to day life?

Yes.

1. Do you think the app should have multicar support?

I don’t need it, but others might.

1. Do you drive an electric vehicle?

Yes.

1. Would you like the app to support electric cars?

Yes.

1. Would you like the app to have the ability to add your own units?

Yes, might be useful.

1. Would you like the interface to be customisable (e.g. colour changes, font changes etc)?

Sure.

1. Would you like to be able to export your data/save it to the cloud?

No.

1. Do you prefer simplistic interfaces or bright and colourful ones?

Colourful.

1. What are some key features you think the app should have?

Reminders for MOT, insurance and tax could be very useful. I would have a lot of use out of custom reminders.

1. Are there any other questions you think would be important to ask?

Nope.

Age – 34

Gender – Male

1. Do you drive more than one vehicle?

Yes.

1. Do you rely on the vehicle(s) for day to day life?

No.

1. Do you think the app should have multicar support?

Yes.

1. Do you drive an electric vehicle?

Yes.

1. Would you like the app to support electric cars?

Yes.

1. Would you like the app to have the ability to add your own units?

No.

1. Would you like the interface to be customisable (e.g. colour changes, font changes etc)?

Sure, that could be quite cool.

1. Would you like to be able to export your data/save it to the cloud?

Sure, being able to share it easily on social media would be good too.

1. Do you prefer simplistic interfaces or bright and colourful ones?

Simplistic.

1. What are some key features you think the app should have?

I’m not sure what I would really find useful.

1. Are there any other questions you think would be important to ask?

Don’t believe so.

Age – 40

Gender – Female

1. Do you drive more than one vehicle?

Yes, one car and two motorbikes.

1. Do you rely on the vehicle(s) for day to day life?

Yes.

1. Do you think the app should have multicar support?

Yes.

1. Do you drive an electric vehicle?

No.

1. Would you like the app to support electric cars?

If you can don’t see why not.

1. Would you like the app to have the ability to add your own units?

No.

1. Would you like the interface to be customisable (e.g. colour changes, font changes etc)?

Could be, probably won’t use it though.

1. Would you like to be able to export your data/save it to the cloud?

Yes.

1. Do you prefer simplistic interfaces or bright and colourful ones?

Simplistic.

1. What are some key features you think the app should have?

Being able to compare the actual cars stats with suppliers’ stats would be very nice.

1. Are there any other questions you think would be important to ask?

I can’t think of anything else that would be important.

Age – 30

Gender – Female

1. Do you drive more than one vehicle?

Yes.

1. Do you rely on the vehicle(s) for day to day life?

Yes.

1. Do you think the app should have multicar support?

Yes.

1. Do you drive an electric vehicle?

No.

1. Would you like the app to support electric cars?

Yes, I am thinking of getting an electric motorbike.

1. Would you like the app to have the ability to add your own units?

Sure, could be pretty useful.

1. Would you like the interface to be customisable (e.g. colour changes, font changes etc)?

No.

1. Would you like to be able to export your data/save it to the cloud?

Sure.

1. Do you prefer simplistic interfaces or bright and colourful ones?

Simplistic.

1. What are some key features you think the app should have?

I believe if you look at other apps on the market you could come up with some pretty useful ideas.

1. Are there any other questions you think would be important to ask?

No.

Age – 26

Gender – Female

1. Do you drive more than one vehicle?

No.

1. Do you rely on the vehicle(s) for day to day life?

Yes.

1. Do you think the app should have multicar support?

No.

1. Do you drive an electric vehicle?

Yes.

1. Would you like the app to support electric cars?

Yes.

1. Would you like the app to have the ability to add your own units?

No.

1. Would you like the interface to be customisable (e.g. colour changes, font changes etc)?

Yes.

1. Would you like to be able to export your data/save it to the cloud?

Yes.

1. Do you prefer simplistic interfaces or bright and colourful ones?

Simplistic.

1. What are some key features you think the app should have?

I have a somewhat a hard time understanding and comparing numbers so having them all in a graph of some kind I would find very useful, but depending on the layout of the app it might not be necessary.

1. Are there any other questions you think would be important to ask?

No.