Section A

### When most people think of the target market for used cars, they typically think of young people who are just starting out in life and who are looking for a cheaper alternative to a new car.

1. **Parents buying for a teenager**

Parents, when they’re buying a first car for their teenager who has just started driving, might be reluctant to buy them a brand-new car. They might want to inculcate a sense of responsibility in their child by having them maintain and take care of a used car first. Buying an affordable used car will also help the parents save money in case they need to replace it soon after.

1. **Adults who are looking to buy a second car**

Some people buy a used car as their second car. This might be because they live in a city and keep their primary car for long drives while using their used car for city driving. Or they might keep the second car at a weekend home and only use it occasionally.

Section B

Username: autocars

Password: Group15yfgtc+

url: <http://mars.cs.ukzn.ac.za/~autocars/autocars3/index.php>

Section C

* Home page

When you first enter the home page of Autocars, you’re greeted by the Autocars logo with 7 other pages including a home page, we also have a mesmerizing background image of a car which is Chevrolet… when you scroll down you have a section for car brands where you will find the TOYOTA, AUDI, BMW and CHEVROLET, once you click in any of your choice the page will take you to the next step, nothing is really hard here we made it easy and usable for you not to struggle then lasty we have a footer about our company

* About page

The about us page informs the reader about the autocars company and its operations. It’s very straightforward

* Sign up page

Sign up provides a way for our visitors to opt into our communications or gain more information about our business

* Login page

Our Login page allows the user to gain access to our registration

Page by entering their username and password

* Contact Page

Visitors can contact our organization or individual provided by the website. This page contains more than one way to contact autocars

Section D

* For more of our database table we would like you to enter at our project and locate the file named database that is where we have made our database tables available, you can view them with Heidi sql we are very sorry for the inconvenience caused.

Section E

* Many discussions were during the process a lot of struggles encountered but because we are the greatest at this at the end the solutions were found let me make a few examples we had problems with storing our cars connecting into our servers I can mention many, about our design we decided to make it very simple for you anyone can access it, the design was meant to be easy not to be hard on everyone to understand, I hope you will also find this interesting

Section G

(a) Injection Attacks

A website that is vulnerable to injection attacks accepts untrusted data from an input field without any proper sanitation. By typing code into an input field, the attacker can trick the server into interpreting it as a system command and thereby act as the attacker intended.

Some common injection attacks include SQL injections, Cross-Site Scripting, Email Header Injection, etc. These attacks could

lead to unauthorized access to databases and exploitation of admin privileges.

How we handle the above security:

Keep untrusted inputs away from commands and queries.

Use a safe Application Programming Interface (API) that avoids interpreters or uses parameterized interfaces.

Filter and sanitize all inputs as per a whitelist. This prevents the use of malicious character combinations.

(b). Cross-Site Scripting (XSS)

It is an injection-based client-side attack. At its core, this attack involves injecting malicious code in a website application to execute them in the victims’ browsers eventually. Any application that doesn’t validate untrusted data adequately is vulnerable to such attacks.

Successful implementation results in the theft of user session IDs, website defacing, and redirection to malicious sites (thereby allowing phishing attacks).

(c). Insecure Direct Object References (IDOR)

Mostly through manipulation of the URL, an attacker gains access to database items belonging to other users. For instance, the reference to a database object is exposed in the URL.

The vulnerability exists when someone can edit the URL to access other similar critical information (such as monthly salary slips) without additional authorization.

How we overcome this above security issue, customize error messages so that they don’t reveal critical information about the respective user.

Try not to disclose reference to objects in the URL; use POST based information transmission over GET.

Section H

Security Testing is where we were processing intended to reveal flaws in the security mechanisms of an information system that protect data and maintain functionality as intended.

Functionality Testing is a type of testing that seeks to establish whether each application feature works as per the software requirements.

Performance testing is a testing measure that evaluates the speed, responsiveness, and stability of a computer, network, software program, or device under a workload.

Section F

* we used attractive visuals and graphics to ensure that visitors stick around and make the website interesting.

* We ensured that it is easy for the customers to navigate through the website by including clear options for important information or action they may need.
* We promoted our products by including the details of our social media pages for every relevant platform

The website is fast functioning and there are no AD pop-ups and cookies

Section J

* Talking about the greatest element in our website that’s when the user can click to brands and have a look at what we have in store explore the beast, comfortable and fast cars that we provide, they get to also see the full description of our cars, so I hope you also find that part amazing
* Then when we talk about the element that was hard to present that’s the booking and the brands page that requires a lot of time and dedication because we encountered so many errors, but we tried to work them out so that you get the best website