

VISUALIZATION TOOL FOR ELECTRIC VEHICLE AND RANGE ANALYSIS



**GOVINDAMMAL ADITHANAR COLLEGE FOR
WOMEN -TIRUCHENDUR**

III BSc PHYSICS

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INTRODUCTION

OVERVIEW:

- ✧ Electric vehicles (EVs) were invented over a century ago but have only gained widespread popularity in the last decade . Most car manufacturers have either launched or announced their lines of EVs, including cars, SUVs, and trucks . Some companies have announced that they will only manufacture electric cars in the future (Tesla is currently the only large manufacturer of electric-only vehicles), while most have committed to dedicating a significant portion of their fleet to electric or hybrid vehicles.
- ✧ Several factors, such as climate change, emissions reduction, growth of renewable energy resources, volatile oil prices, reducing battery costs, and governmental policies , have contributed to this shift among vehicle manufacturers. Most of these factors are interdependent, and, collectively, they help reduce the impact of climate change. Several researchers have

been studying the details of electric vehicle technology so that their overall efficiency and performance can be improved. Hannan et al. reviewed the various aspects of hybrid electric vehicles, Du and Ouyang studied policy impact on the growth of the Chinese EV market , while De Santis et al. simulated the effect of using a back-to-back dual-motor mounting on powertrain efficiency . In a more recent paper by Li et al., the powertrain efficiency of different configurations and resource types was compared . Several other researchers have focused on the environmental impact of EV adoption as well as improvements in technology.

PURPOSE:

- ✧ Electric vehicles are more efficient, and that combined with the electricity cost means that charging an electric vehicle is cheaper than filling petrol or diesel for your travel requirements. Using renewable energy sources can make the use of electric vehicles more eco-friendly.
- ✧ Electric vehicles have very low maintenance costs because they don't have as many moving parts as an internal combustion vehicle.
- ✧ Driving an electric vehicle can help you reduce your carbon footprint because there will be zero tailpipe emissions. You can reduce the environmental impact of charging your vehicle further by choosing renewable energy options for home electricity.
- ✧ Registration fees and road tax on purchasing electric vehicles are lesser than petrol or diesel vehicles.
- ✧ Electric vehicles don't have gears and are very convenient to drive. There are no complicated controls, just accelerate, brake, and steer. When you want to charge your vehicle, just plug it in to a home or public charger. Electric vehicles are also quiet, so

they reduce noise pollution that traditional vehicles contribute to.

- ✧ Electric vehicles have the silent functioning capability as there is no engine under the hood. No engine means no noise. The electric motor functions so silently that you need to peek into your instrument panel to check if it is ON. Electric vehicles are so silent that manufacturers have to add false sounds in order to make them safe for pedestrians.

PROBLEM DEFINITION & DESIGN THINKING



Says

- ✧ MODERN TECHNOLOGY WITH VARIOUS FACILITIES LIKE GPS,AUTOMATIC,GOOD SPEED CONTROL ETC.....

- ✧ RECHARGABLE BATTERY
- ✧ MORE DEMAND FOR ELECTRIC VEHICLE IN MARKETS NOW-A-DAYS
- ✧ NOISE FREE
- ✧ ENVIRONMENT FRIENDLY

THINKS

- ✧ FEAR OF MAINTANANCE ANS SERVICE
- ✧ AFFORDABLE PRICE
- ✧ RELIABLE
- ✧ SMOOTH TRAVEL
- ✧ SMART APPEARANCE

DOES:

- ✧ MORE EFFICIENT COMPARED TO MOTOR VEHICLES
- ✧ FITS TO THE PLANNED BUDGET
- ✧ CAN HAVE SPARE BATTERYDURING LONG JOURNEY
- ✧ NEEDS TO BE TECHNICALLY IMPROVED TO RECTIFY THE PROBLEMS
- ✧ CAN RECHARGE THE BATTERY. NO MONEY WASTAGE ON FUELS

FEELS

- ✧ THE BATTERY MAY DISCHARGE BEFORE REACHING DESTINATION
- ✧ START UP PROBLEM DURING RAINY SEASON
- ✧ NEED OF MORE ELECTRIC POWER
- ✧ TAKES LONG TIME FOR CHARGING
- ✧ LACK OF CHARGING STATIONS
- ✧ FIRE ACCIDENTS& ELECTRIC SHOCK MAY OCCUR

IDEATION & BRAINSTORMING MAP

1 Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

10 minutes

Context

- Few accidental shocks any more
- Lack of charging stations
- Demand of electric vehicle in future
- Electric vehicle are not suitable for any climate

Key rules of brainstorming

To be successful and productive sessions

- Stay on topic
- Encourage wild ideas
- Defer judgment
- Listen actively
- No forbidden words
- If possible, go visual

2 Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

Willingness

Privacy skills

Brainstorming

Brainstorming

3 Group ideas

Now turn, sharing your ideas with a partner or small group or related ideas as you go. One of many ideas from your group, give each idea a solution that you like. It is used in design from the study notes by each team. You can make it up into a story with pictures.

10 minutes

- To increase the market of electric vehicle the power stations are more important
- Avoid overcharging of batteries
- Use the right quality or opt batteries for your electric vehicles
- Electric cars produce heat and still need a cooling system
- Can have the spare battery during long journey to reach our location
- Needs the shock free electric vehicles

4 Prioritize

Now you have a list of ideas, it's time to prioritize them. Use the following criteria to rank your ideas. The ideas that are most important to you are the ones that you will focus on.

10 minutes

Brainstorming

Brainstorming

The image displays a variety of data visualizations:

- Dashboard Header:** A grey header with the word "DASHBOARD" in large, bold, black letters.
- Electric City Analytics Dashboard:** A central illustration showing two electric cars at charging stations in a city setting. It includes two search filters: "different brands of electric cars globally" and "different electric car brands".
- Global EV Sales by Region:** A pie chart showing the distribution of electric vehicle sales across different regions.
- EV Sales by Brand:** A bubble chart where the size of each bubble represents the sales volume for a specific electric car brand.
- EV Sales by Model:** A bar chart showing the sales figures for various electric vehicle models.
- EV Sales by Powertrain Type:** A treemap visualization showing the distribution of electric vehicle sales based on different powertrain technologies.
- Charging Stations by Region and Type:** A bar chart showing the number of charging stations across different regions, categorized by station type.
- Different EV cars in India:** A treemap visualization showing the market share of various electric vehicle models in the Indian market.
- EV charging stations map of India:** A map of India with colored dots indicating the locations of electric vehicle charging stations across the country.
- EV charging stations by region:** A horizontal bar chart showing the total number of charging stations in each region of India.
- EV charging stations by brand:** A bar chart showing the number of charging stations associated with different electric vehicle brands.



STORY

<	Charging Stations In India	Charging Stations By Region And Type	Price Of Electric Cars By Different Brands	Different Brands And No of Models	>
---	----------------------------	--------------------------------------	--	-----------------------------------	---



ADVANTAGES OF ELECTRIC VEHICLE

Eco- Friendly:

- ✧ Because electric vehicles do not utilize fuel for combustion, there are no emissions or gas exhaust.
- ✧ Thus driving an electric car can help contribute to a cleaner environment.

Renewable energy source :

- ✧ Electric vehicles run on renewable power, whereas conventional automobiles function on the combustion of fossil fuels , which reduces the world's fossil - fuel stocks.

Less noise and smoother motion:

- ✧ Driving an electric car is significantly smoother, because they lack fast moving elements, they are quieter and produce less noise

Cost Effective:

- ✧ Electricity is far less expensive than fuels such as gasoline and diesel, which are subject to regular price increases.
- ✧ When solar electricity is utilised at home battery recharging is cost effective.

Low maintenance:

- ✧ Because Electric cars have fewer moving components, wear and tear is reduced when compared to traditional auto parts.
- ✧ Repairs are also simpler and less expensive than combustion engines.

Government Support:

- ✧ Governments throughout the world have granted tax breaks to encourage people to drive electric vehicles as part of a green program.

DISADVANTAGES OF ELECTRIC VEHICLE

High Initial Cost:

- ✧ Electric vehicles continue to be quite expensive and many buyers believe they are not as inexpensive as traditional automobiles.

Charging Station Limitations:

- ✧ People who need to travel long distances are concerned about finding adequate charging stations in the middle of their journey, which are not always accessible.

Recharging Takes Time :

- ✧ Unlike conventional automobiles, which require only a few minutes to replenish their gas tanks charging an electric vehicle takes many hours.

Limited Options:

- ✧ Currently there aren't many Electric car models to pick from in terms of appearance, style or customized variations.

Less Driving Range:

- ✧ When compared to conventional automobiles, electric vehicles have a shorter driving range.
- ✧ Electric cars can be convenient for short-distance travel but are inconvenient for long-distance travel.

APPLICATIONS

Lower Running Costs:

- ✧ The running cost of an electric vehicle is much lower than an equivalent petrol or diesel vehicles.

Lower Maintenance Cost :

- ✧ Electric vehicles have very low maintenance costs because they don't have as many moving parts as an internal combustion vehicle .

Zero Tailpipe Emissions:

- ✧ Driving an electric vehicle can help you reduce our carbon footprint because there will be zero tailpipe emissions .

Tax and Financial Benefits:

- ✧ Registration fees and road tax on purchasing electric vehicles are lesser than petrol or diesel vehicles.

No Noise Pollution:

- ✧ Electric vehicles have the silent functioning capability as there is no engine under the hood.
- ✧ No engine means No noise.

CONCLUSION

EV has reduced carbon emissions significantly in the area where it is used. Electric vehicles are definitely more environmentally friendly than internal combustion vehicles. Batteries are being engineered to have a long life . When the electric vehicles become more widespread, battery recycling will become economically possible. Research into other energy sources such as fuel cells and renewable fuels makes the future look brighter for the electric vehicles.

FUTURE SCOPE

- ✧ EV is the future not only of transport but of our planet. These vehicles are plugged into a charging stations at a low voltage. The obvious starting point for these vehicle is the charging station. EV that can power themselves by harvesting energy from their environment.
- ✧ EV are using different sources such as wind power, solar power and hydraulic power. The future scope of electric vehicles is massive. Ev will help reducing the emissions of diesel vehicle by up to 40%. Ev will DC fast charging stations are suitable for adding a lot of mileage during quick stops. The success of the roll out of low carbon electric transportation will largely depend upon whether consumers are able to take responsibility for their own recharging habits and move towards a more sustainable lifestyle.

APPENDIX

SOURCE CODE

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
<meta charset="utf-8">
```

```
<meta content="width=device-width, initial-scale=1.0"  
name="viewport">
```

```
<title>Electric Cars Analytics</title>
```

```
<meta content="" name="description">
```

```
<meta content="" name="keywords">
```

```
<!-- Favicons -->
```

```
<link href="assets/img/favicon.png" rel="icon">
```

```
<link href="assets/img/apple-touch-icon.png"  
rel="apple-touch-icon">
```

```
<!-- Google Fonts -->
```

```
<link  
href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600i,700,700i|Nunito:300,300i,400,400i,600,600i,700,700i|Poppins:300,300i,400,400i,500,500i,600,600i,700,700i" rel="stylesheet">
```

```
<!-- Vendor CSS Files -->
```

```
<link href="assets/vendor/aos/aos.css" rel="stylesheet">
```

```
<link
href="assets/vendor/bootstrap/css/bootstrap.min.css"
rel="stylesheet">
```

```
<link href="assets/vendor/bootstrap-icons/bootstrap-
icons.css" rel="stylesheet">
```

```
<link
href="assets/vendor/glightbox/css/glightbox.min.css"
rel="stylesheet">
```

```
<link href="assets/vendor/remixicon/remixicon.css"
rel="stylesheet">
```

```
<link href="assets/vendor/swiper/swiper-bundle.min.css"
rel="stylesheet">
```

```
<!-- Template Main CSS File -->
```

```
<link href="assets/css/style.css" rel="stylesheet">
```

```
<!--
=====
=====
```

```
* Template Name: FlexStart - v1.12.0
```

```
* Template URL: https://bootstrapmade.com/flexstart-
bootstrap-startup-template/
```

```
* Author: BootstrapMade.com
```

```
* License: https://bootstrapmade.com/license/
```

```
=====
===== -->
```

```
</head>
```

```
<body>
```

```
<!-- ===== Header ===== -->
```

```
<header id="header" class="header fixed-top">
```

```
<div class="container-fluid container-xl d-flex align-items-center justify-content-between">
```

```
<a href="index.html" class="logo d-flex align-items-center">
```

```

```

```
<span>E-CarStart</span>
```

```
</a>
```

```
<nav id="navbar" class="navbar">
```

```
<ul>
```

```
<li> <a class="nav-link scrollto active" href="#hero">Home</a> </li>
```

```
        <li> <a class="nav-link scrollTo"
href="#about">About</a> </li>
```

```
        <li> <a class="nav-link scrollTo"
href="#values">Dashboard</a> </li>
```

```
        <li> <a class="nav-link scrollTo"
href="#services">Story</a> </li>
```

```
        <li> <a class="nav-link scrollTo"
href="#team">Team</a> </li>
```

```
        <li> <a class="nav-link scrollTo"
href="#contact">Contact</a> </li>
```

```
        <li> <a class="getstarted scrollTo"
href="#about">Get Started</a> </li>
```

```
</ul>
```

```
<i class="bi bi-list mobile-nav-toggle"> </i>
```

```
</nav> <!-- .navbar -->
```

```
</div>
```

```
</header> <!-- End Header -->
```

```
<!-- ===== Hero Section ===== -->
```

```
<section id="hero" class="hero d-flex align-items-
center">
```



```
<div class="container">

  <div class="row">

    <div class="col-lg-6 d-flex flex-column justify-content-center">

      <h1 data-aos="fade-up">We offer modern
Analytics solutions for Electric Vehicles</h1>

      <div data-aos="fade-up" data-aos-delay="600">

        <div class="text-center text-lg-start">

          <a href="#about" class="btn-get-started scrollto
d-inline-flex align-items-center justify-content-center
align-self-center">

            <span>Get Started</span>

            <i class="bi bi-arrow-right"> </i>

          </a>

        </div>

      </div>

    </div>

    <div class="col-lg-6 hero-img" data-aos="zoom-out"
data-aos-delay="200">
```


<h2>E-Cart Start is a complete analytics tool for electric vehicles all over the world.</h2>

<p>

The Electric Vehicle (EV) is not new, but it has been receiving significantly more attention in recent years. Advances in both EV analytics and battery technologies have led to increased automotive market share. The modern mechatronic vehicle marries electrical storage and propulsion systems with electronic sensors, controls, and actuators, integrated closely with software, secure data transfer, and data analysis, to form a comprehensive transportation solution. Advances in all these areas have contributed to the overall rise of EV's, but the common thread that runs through all these elements is data analytics.

</p>

<div class="text-center text-lg-start">

Read More

<i class="bi bi-arrow-right"> </i>

</div>

</div>

</div>

<div class="col-lg-6 d-flex align-items-center" data-aos="zoom-out" data-aos-delay="200">

</div>

</div>

</div>

</section> <!-- End About Section -->F

<!-- ===== Values Section ===== -->

<section id="values" class="values">

<div class="container" data-aos="fade-up">

<header class="section-header">

<h2>Dashboard</h2>

<p>E-Car Start Analytics Dashboard</p>

</header>

<div class="row">

<div class='tableauPlaceholder'
id='viz1681366508204' style='position:
relative'><noscript><img alt='Dashboard 1 '
src='https://public.tableau.com/static/
images/ST/STORYOFELECTRICCARSININDIA_168
12950662520/Dashboard1/1_rss.png'
style='border: none' /></noscript><object
class='tableauViz' style='display:none;'><param
name='host_url'
value='https%3A%2F%2Fpublic.tableau.com%2F' />
<param name='embed_code_version' value='3' />
<param name='site_root' value='' /><param
name='name'
value='STORYOFELECTRICCARSININDIA_16812950662520
/Dashboard1' /><param name='tabs' value='no'
><param name='toolbar' value='yes' /><param
name='static_image'
value='https://public.tableau.com/static/
47/images/ST/STORYOFELECTRICCARSININDIA_
16812950662520/Dashboard1/1.png' />
<param name='animate_transition' value='yes' /><param
name='display_static_image' value='yes' /><param
name='display_spinner' value='yes' /><param
name='display_overlay' value='yes' /><param

```
name='display_count' value='yes' /> <param
name='language' value='en-US' /> </object> </div>
<script type='text/javascript'>                var divElement
= document.getElementById('viz1681366508204');
var vizElement =
divElement.getElementsByTagName('object')[0];
if ( divElement.offsetWidth > 800 )
{ vizElement.style.width='1320px';vizElement.style.height='
2027px';} else if ( divElement.offsetWidth > 500 )
{ vizElement.style.width='1320px';vizElement.style.height='
2027px';} else
{ vizElement.style.width='100%';vizElement.style.height='3
727px';}                var scriptElement =
document.createElement('script');
scriptElement.src =
'https://public.tableau.com/javascripts/api/viz_v1.js';
vizElement.parentNode.insertBefore(scriptElement,
vizElement);                </script>
```

</div>

</div>

</section> <!-- End Values Section -->

```
<!-- ===== Features Section ===== -->
```

```
<section id="features" class="features">
```

```
<div class="container" data-aos="fade-up">
```

```
<header class="section-header">
```

```
<h2>Features</h2>
```

```
<p>There are many different features of our  
project</p>
```

```
</header>
```

```
<div class="row">
```

```
<div class="col-lg-6">
```

```

```

```
</div>
```

```
<div class="col-lg-6 mt-5 mt-lg-0 d-flex">
```

```
<div class="row align-self-center gy-4">
```

```
<div class="col-md-6" data-aos="zoom-out" data-aos-delay="200">
```

```
<div class="feature-box d-flex align-items-center">
```

```
<i class="bi bi-check"> </i>
```

```
<h3>Analyse the current stats</h3>
```

```
</div>
```

```
</div>
```

```
<div class="col-md-6" data-aos="zoom-out" data-aos-delay="300">
```

```
<div class="feature-box d-flex align-items-center">
```

```
<i class="bi bi-check"> </i>
```

```
<h3>Get to know EV more</h3>
```

```
</div>
```

```
</div>
```

```
<div class="col-md-6" data-aos="zoom-out" data-aos-delay="400">
```



```
<div class="feature-box d-flex align-items-center">  
  
  <i class="bi bi-check"> </i>  
  
  <h3>Know about Charging Stations</h3>  
  
</div>  
</div>
```

```
<div class="col-md-6" data-aos="zoom-out" data-aos-delay="500">  
  
  <div class="feature-box d-flex align-items-center">  
  
    <i class="bi bi-check"> </i>  
  
    <h3>Top performing Brands</h3>  
  
  </div>  
</div>
```

```
<div class="col-md-6" data-aos="zoom-out" data-aos-delay="600">  
  
  <div class="feature-box d-flex align-items-center">  
  
    <i class="bi bi-check"> </i>  
  
    <h3>different brands in India</h3>
```

</div>

</div>

<div class="col-md-6" data-aos="zoom-out"
data-aos-delay="700">

<div class="feature-box d-flex align-items-
center">

<i class="bi bi-check"> </i>

<h3>different brands Globally</h3>

</div>

</div>

</div>

</div>

</div> <!-- / row -->

<!-- Feature Tabs -->

<div class="row feture-tabs" data-aos="fade-up">

<div class="col-lg-6">

<h3>Overview of Electric Vehicle Sector</h3>

<!-- Tabs -->

<ul class="nav nav-pills mb-3">

Overview

Pricing

 <!-- End Tabs -->

<!-- Tab Content -->

<div class="tab-content">

<div class="tab-pane fade show active" id="tab1">

<p>The supply of fossil fuels is constantly decreasing. The situation is very alarming. It is time for the world to slowly adapt to electric vehicles. </p>

```
<div class="d-flex align-items-center mb-2">
```

```
<i class="bi bi-check2"> </i>
```

```
<h4>A lot of change needs to happen</h4>
```

```
</div>
```

```
<p>Major carmakers like Tesla and Porsche  
manufacture many electric vehicles. </p>
```

```
<div class="d-flex align-items-center mb-2">
```

```
<i class="bi bi-check2"> </i>
```

```
<h4> The improvement of battery technology  
in recent years has led to the higher popularity of electric  
vehicles.</h4>
```

```
</div>
```

```
<p>Buying an electric vehicle can be a great  
choice for consumers. The drive quality, low noise levels,  
and convenience are really great.</p>
```

```
</div> <!-- End Tab 1 Content -->
```

```
<div class="tab-pane fade show" id="tab2">
```

```
<p> In the United States, one year of driving a  
petrol car can cost from 1500 USD to 2500 USD.</p>
```

```
<div class="d-flex align-items-center mb-2">
```

```
<i class="bi bi-check2"> </i>
```

On the other hand, the driving cost of Electric Vehicles is 500 USD. Electric cars are more preferable.

The maintenance cost of electric vehicles is also very low. They are economical to maintain.

The energy conversion efficiency of electric vehicles is also high.

Electric vehicles use 60-70% of electrical energy. On the other hand, vehicles based on internal combustion engines have an efficiency of 18-22% only. The energy cost of manufacturing an electric vehicle is also very high, but considering everything and the fact that charging electric vehicles is very cheap, EVs are a great option. Manufacturing batteries is an important task in the production of Electric vehicles.

```
<div class="col-lg-6">
```

```
    
```

```
</div>
```

```
</div> <!-- End Feature Tabs -->
```

```
</div>
```

```
</section> <!-- End Features Section -->
```

```
<!-- ===== Services Section ===== -->
```

```
<section id="services" class="services">
```

```
<div class="container" data-aos="fade-up">
```

```
<header class="section-header">
```

```
<h2>Story</h2>
```

```
<p>Electric vehicles Analytics Story</p>
```

```
</header>
```

```
<div class="row gy-4">
```

```
    <div class='tableauPlaceholder'
id='viz1681368174502' style='position:
relative'> <noscript> <a href='#'> <img alt='STORY OF
ELECTRIC CARS IN INDIA '
src='https://public.tableau.com/static/
images/EL/ELECTRICCARSININDIAstory/ST
ORYOFELECTRICCARSININDIA/1_rss.png'
style='border: none' /> </a> </noscript> <object
class='tableauViz' style='display:none;'> <param
name='host_url'
value='https%3A%2F%2Fpublic.tableau.com%2F' />
<param name='embed_code_version' value='3' />
<param name='site_root' value='' /> <param
name='name'
value='ELECTRICCARSININDIAstory/STORYOFELECTRI
CCARSININDIA' /> <param name='tabs' value='no'
/> <param name='toolbar' value='yes' /> <param
name='static_image'
value='https://public.tableau.com/static/
images/EL/ELECTRICCARSININDIAstory/
STORYOFELECTRICCARSININDIA/1.png' /> <param
name='animate_transition' value='yes' /> <param
```

```
name='display_static_image' value='yes' /> <param
name='display_spinner' value='yes' /> <param
name='display_overlay' value='yes' /> <param
name='display_count' value='yes' /> <param
name='language' value='en-US' /> </object> </div>
<script type='text/javascript'>                var divElement
= document.getElementById('viz1681368174502');
var vizElement =
divElement.getElementsByTagName('object')[0];
vizElement.style.width='1016px';vizElement.style.height='9
91px';                var scriptElement =
document.createElement('script');
scriptElement.src =
'https://public.tableau.com/javascripts/api/viz_v1.js';
vizElement.parentNode.insertBefore(scriptElement,
vizElement);                </script>
```

```
</div>
```

```
</div>
```

```
</section> <!-- End Services Section -->
```

```
<!-- ===== Testimonials Section ===== -->
```

```
<section id="testimonials" class="testimonials">
```



```
<div class="container" data-aos="fade-up">
```

```
<header class="section-header">
```

```
<h2>Testimonials</h2>
```

```
<p>What they are saying about us</p>
```

```
</header>
```

```
<div class="testimonials-slider swiper" data-aos="fade-up" data-aos-delay="200">
```

```
<div class="swiper-wrapper">
```

```
<div class="swiper-slide">
```

```
<div class="testimonial-item">
```

```
<div class="stars">
```

```
<i class="bi bi-star-fill"></i><i class="bi bi-star-fill"></i><i class="bi bi-star-fill"></i><i class="bi bi-star-fill"></i><i class="bi bi-star-fill"></i>
```

```
</div>
```

```
<p>
```

```
Proin iaculis purus consequat sem cure digni  
ssim donec porttitora entum suscipit rhoncus.
```

Accusantium quam, ultricies eget id, aliquam eget nibh et. Maecen aliquam, risus at semper.

</p>

<div class="profile mt-auto">

<h3>Saul Goodman</h3>

<h4>Ceo & Founder</h4>

</div>

</div>

</div> <!-- End testimonial item -->

<div class="swiper-slide">

<div class="testimonial-item">

<div class="stars">

<i class="bi bi-star-fill"></i> <i class="bi bi-star-fill"></i> <i class="bi bi-star-fill"></i> <i class="bi bi-star-fill"></i> <i class="bi bi-star-fill"></i>

</div>

<p>

Export tempor illum tamen malis malis eram
quae irure esse labore quem cillum quid cillum eram malis
quorum velit fore eram velit sunt aliqua noster fugiat irure
amet legam anim culpa.

</p>

<div class="profile mt-auto">

<h3>Sara Wilsson</h3>

<h4>Designer</h4>

</div>

</div>

</div> <!-- End testimonial item -->

<div class="swiper-slide">

<div class="testimonial-item">

<div class="stars">

<i class="bi bi-star-fill"></i> <i class="bi bi-
star-fill"></i> <i class="bi bi-star-fill"></i> <i class="bi bi-
star-fill"></i> <i class="bi bi-star-fill"></i>

</div>

<p>

Enim nisi quem export dui labore cillum quae magna enim sint quorum nulla quem veniam dui minim tempor labore quem eram dui noster aute amet eram fore quis sint minim.

</p>

<div class="profile mt-auto">

<h3>Jena Karlis</h3>

<h4>Store Owner</h4>

</div>

</div>

</div> <!-- End testimonial item -->

<div class="swiper-slide">

<div class="testimonial-item">

<div class="stars">

<i class="bi bi-star-fill"></i> <i class="bi bi-star-fill"></i> <i class="bi bi-star-fill"></i> <i class="bi bi-star-fill"></i> <i class="bi bi-star-fill"></i>

```
</div>
```

```
<p>
```

Fugiat enim eram quae cillum dolore dolor amet nulla culpa multos export minim fugiat minim velit minim dolor enim duis veniam ipsum anim magna sunt elit fore quem dolore labore illum veniam.

```
</p>
```

```
<div class="profile mt-auto">
```

```

```

```
<h3>Matt Brandon</h3>
```

```
<h4>Freelancer</h4>
```

```
</div>
```

```
</div>
```

```
</div> <!-- End testimonial item -->
```

```
<div class="swiper-slide">
```

```
<div class="testimonial-item">
```

```
<div class="stars">
```

<i class="bi bi-star-fill"> </i> <i class="bi bi-star-fill"> </i> <i class="bi bi-star-fill"> </i> <i class="bi bi-star-fill"> </i>

</div>

<p>

Quis quorum aliqua sint quem legam fore sunt
eram irure aliqua veniam tempor noster veniam enim
culpa labore duis sunt culpa nulla illum cillum fugiat legam
esse veniam culpa fore nisi cillum quid.

</p>

<div class="profile mt-auto">

<h3>John Larson</h3>

<h4>Entrepreneur</h4>

</div>

</div>

</div> <!-- End testimonial item -->

</div>

<div class="swiper-pagination"> </div>

</div>

</div>

</section> <!-- End Testimonials Section -->

<!-- ===== Team Section ===== -->

<section id="team" class="team">

<div class="container" data-aos="fade-up">

<header class="section-header">

<h2>Team</h2>

<p>Our hard working team</p>

</header>

<div class="row gy-4">

<div class="col-lg-3 col-md-6 d-flex align-items-stretch" data-aos="fade-up" data-aos-delay="100">

```
<div class="member">

  <div class="member-img">

    

    <div class="social">

      <a href=""> <i class="bi bi-twitter"> </i> </a>

      <a href=""> <i class="bi bi-
facebook"> </i> </a>

      <a href=""> <i class="bi bi-
instagram"> </i> </a>

      <a href=""> <i class="bi bi-linkedin"> </i> </a>

    </div>

  </div>

  <div class="member-info">

    <h4>Walter White</h4>

    <span>Chief Executive Officer</span>

    <p>Velit aut quia fugit et et. Dolorum ea
voluptate vel tempore tenetur ipsa quae aut. Ipsum
exercitationem iure minima enim corporis et
voluptate.</p>

  </div>

</div>
```


</div>

<div class="col-lg-3 col-md-6 d-flex align-items-stretch" data-aos="fade-up" data-aos-delay="200">

<div class="member">

<div class="member-img">

<div class="social">

<i class="bi bi-twitter"></i>

<i class="bi bi-facebook"></i>

<i class="bi bi-instagram"></i>

<i class="bi bi-linkedin"></i>

</div>

</div>

<div class="member-info">

<h4>Sarah Jhonson</h4>

Product Manager

<p>Quo esse repellendus quia id. Est eum et
accusantium pariatur fugit nihil minima suscipit corporis.
Voluptate sed quas reiciendis animi neque sapiente.</p>

</div>

</div>

</div>

<div class="col-lg-3 col-md-6 d-flex align-items-
stretch" data-aos="fade-up" data-aos-delay="300">

<div class="member">

<div class="member-img">

<div class="social">

 <i class="bi bi-twitter"> </i>

 <i class="bi bi-
facebook"> </i>

 <i class="bi bi-
instagram"> </i>

 <i class="bi bi-linkedin"> </i>

</div>

</div>

```
<div class="member-info">
```

```
<h4>William Anderson</h4>
```

```
<span>CTO</span>
```

```
<p>Vero omnis enim consequatur. Voluptas  
consectetur unde qui molestiae deserunt. Voluptates enim  
aut architecto porro aspernatur molestiae modi.</p>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
<div class="col-lg-3 col-md-6 d-flex align-items-  
stretch" data-aos="fade-up" data-aos-delay="400">
```

```
<div class="member">
```

```
<div class="member-img">
```

```

```

```
<div class="social">
```

```
<a href=""><i class="bi bi-twitter"></i></a>
```

```
<a href=""><i class="bi bi-  
facebook"></i></a>
```

```
<a href=""><i class="bi bi-  
instagram"></i></a>
```

 <i class="bi bi-linkedin"> </i>

</div>

</div>

<div class="member-info">

<h4>Amanda Jepson</h4>

Accountant

<p>Rerum voluptate non adipisci animi
distinctio et deserunt amet voluptas. Quia aut aliquid
doloremque ut possimus ipsum officia.</p>

</div>

</div>

</div>

</div>

</div>

</section> <!-- End Team Section -->

<!-- ===== Contact Section ===== -->

```
<section id="contact" class="contact">
```

```
<div class="container" data-aos="fade-up">
```

```
<header class="section-header">
```

```
<h2>Contact</h2>
```

```
<p>Contact Us</p>
```

```
</header>
```

```
<div class="row gy-4">
```

```
<div class="col-lg-6">
```

```
<div class="row gy-4">
```

```
<div class="col-md-6">
```

```
<div class="info-box">
```

```
<i class="bi bi-geo-alt"> </i>
```

```
<h3>Address</h3>
```

```
<p>The Smartbridge<br>Hyderabad,  
Telangana</p>
```

</div>

</div>

<div class="col-md-6">

<div class="info-box">

<i class="bi bi-telephone"> </i>

<h3>Call Us</h3>

<p>+1 5589 55488 55
+1 6678 254445

41</p>

</div>

</div>

<div class="col-md-6">

<div class="info-box">

<i class="bi bi-envelope"> </i>

<h3>Email Us</h3>

<p>info@example.com
contact@example.com</p>

</div>

</div>

<div class="col-md-6">

<div class="info-box">

<i class="bi bi-clock"> </i>

<h3>Open Hours</h3>

<p>Monday - Friday
9:00AM - 07:00PM</p>

</div>

</div>

</div>

</div>

<div class="col-lg-6">

<div class="mapouter">

<div class="gmap_canvas">

<iframe

src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d3806.4996128125663!2d78.357789414877!3d17.435785388049602!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x3bcb93ccf4ea7cc1%3A0xebff7843c5e1e33f!2sStacknexus%20Technologies%20Pvt%20Ltd!5e0!3m2!1sen!2sin!4v1671649820075!5m2!1sen!2sin" width="600" height="450" style="border:0;" allowfullscreen="" loading="lazy" referrerpolicy="no-referrer-when-downgrade"> </iframe>

</div>

```
        <style>.mapouter{position:relative;text-align:right;width:600px;height:400px;}.gmap_canvas{overflow:hidden;background:none!important;width:600px;height:400px;}.gmap_iframe{width:600px!important;height:400px!important;}</style>
```

```
    </div>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
</section><!-- End Contact Section -->
```

```
</main><!-- End #main -->
```

```
<!-- ===== Footer ===== -->
```

```
<footer id="footer" class="footer">
```



```
<div class="footer-top">

  <div class="container">

    <div class="row gy-4">

      <div class="col-lg-5 col-md-12 footer-info">

        <a href="index.html" class="logo d-flex align-items-center">

          

          <span>E-CarStart</span>

        </a>

        <p>We offer modern Analytics solutions for Electric Vehicles.</p>

        <div class="social-links mt-3">

          <a href="#" class="twitter"> <i class="bi bi-twitter"> </i> </a>

          <a href="#" class="facebook"> <i class="bi bi-facebook"> </i> </a>

          <a href="#" class="instagram"> <i class="bi bi-instagram"> </i> </a>

          <a href="#" class="linkedin"> <i class="bi bi-linkedin"> </i> </a>

        </div>

      </div>

    </div>

  </div>
```

```
<div class="col-lg-2 col-6 footer-links">
```

```
<h4>Useful Links</h4>
```

```
<ul>
```

```
<li><i class="bi bi-chevron-right"></i> <a  
href="#">Home</a></li>
```

```
<li><i class="bi bi-chevron-right"></i> <a  
href="#">About us</a></li>
```

```
<li><i class="bi bi-chevron-right"></i> <a  
href="#">Services</a></li>
```

```
<li><i class="bi bi-chevron-right"></i> <a  
href="#">Dashboard</a></li>
```

```
<li><i class="bi bi-chevron-right"></i> <a  
href="#">Story</a></li>
```

```
</ul>
```

```
</div>
```

```
<div class="col-lg-2 col-6 footer-links">
```

```
<h4>Our Services</h4>
```

```
<ul>
```

[<i class="bi bi-chevron-right"> </i> Web Design](https://www.thesmartbridge.com/)

[<i class="bi bi-chevron-right"> </i> Web Development](https://www.thesmartbridge.com/)

[<i class="bi bi-chevron-right"> </i> Product Management](https://www.thesmartbridge.com/)

[<i class="bi bi-chevron-right"> </i> Marketing](https://www.thesmartbridge.com/)

[<i class="bi bi-chevron-right"> </i> Graphic Design](https://www.thesmartbridge.com/)

</div>

<div class="col-lg-3 col-md-12 footer-contact text-center text-md-start">

<h4>Contact Us</h4>

<p>

The Smartbridge

Hyderabad

Telangana

Phone: +1 5589 55488
55

Email:
info@example.com

</p>

</div>

</div>

</div>

</div>

<div class="container">

<div class="copyright">

© Copyright
Smartbridge . All
Rights Reserved

</div>

</div>

</footer> <!-- End Footer -->

```
<a href="#" class="back-to-top d-flex align-items-center justify-content-center"> <i class="bi bi-arrow-up-short"> </i> </a>
```

```
<!-- Vendor JS Files -->
```

```
<script  
src="assets/vendor/purecounter/purecounter_vanilla.js"> <  
/script>
```

```
<script src="assets/vendor/aos/aos.js"> </script>
```

```
<script  
src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"  
> </script>
```

```
<script  
src="assets/vendor/glightbox/js/glightbox.min.js"> </scrip  
t>
```

```
<script src="assets/vendor/isotope-  
layout/isotope.pkgd.min.js"> </script>
```

```
<script src="assets/vendor/swiper/swiper-  
bundle.min.js"> </script>
```

```
<script src="assets/vendor/php-email-  
form/validate.js"> </script>
```

```
<!-- Template Main JS File -->
```

```
<script src="assets/js/main.js"> </script>
```

```
</body>
```

```
</html>
```


