

# VISUALIZATION TOOL FOR ELECTRIC VEHICLE CHARGE AND RANGE ANALYSIS

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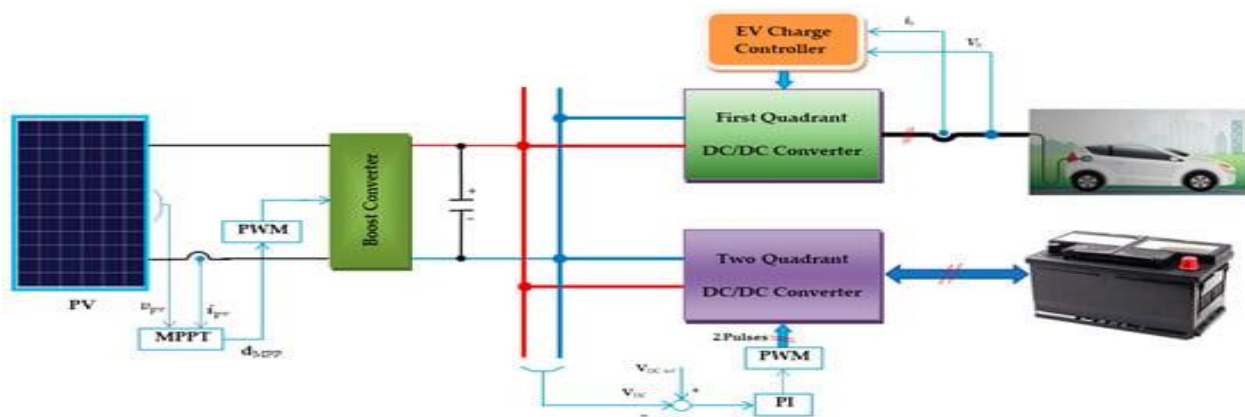
## 1.INTRODUCTION :

### ❖ OVERVIEW:

To tackle the problem of climate change, the target of achieving zero-emission urban freight transport by 2030 as well as zero-emission urban passenger transport by 2050 has been set by the European Commission . To achieve these goals, a shift in the transport sector from vehicles dependent on fossil fuels to alternative, less fuel-dependent transport systems is necessary However, not all of the countries are as ready with their infrastructure as their laws showcase them to be. While the introduction of electric vehicles is key for the shift to electric mobility also the growth and expansion of the charging

networks, technical capabilities, and other supporting technologies in the field of electric mobility are important factors.

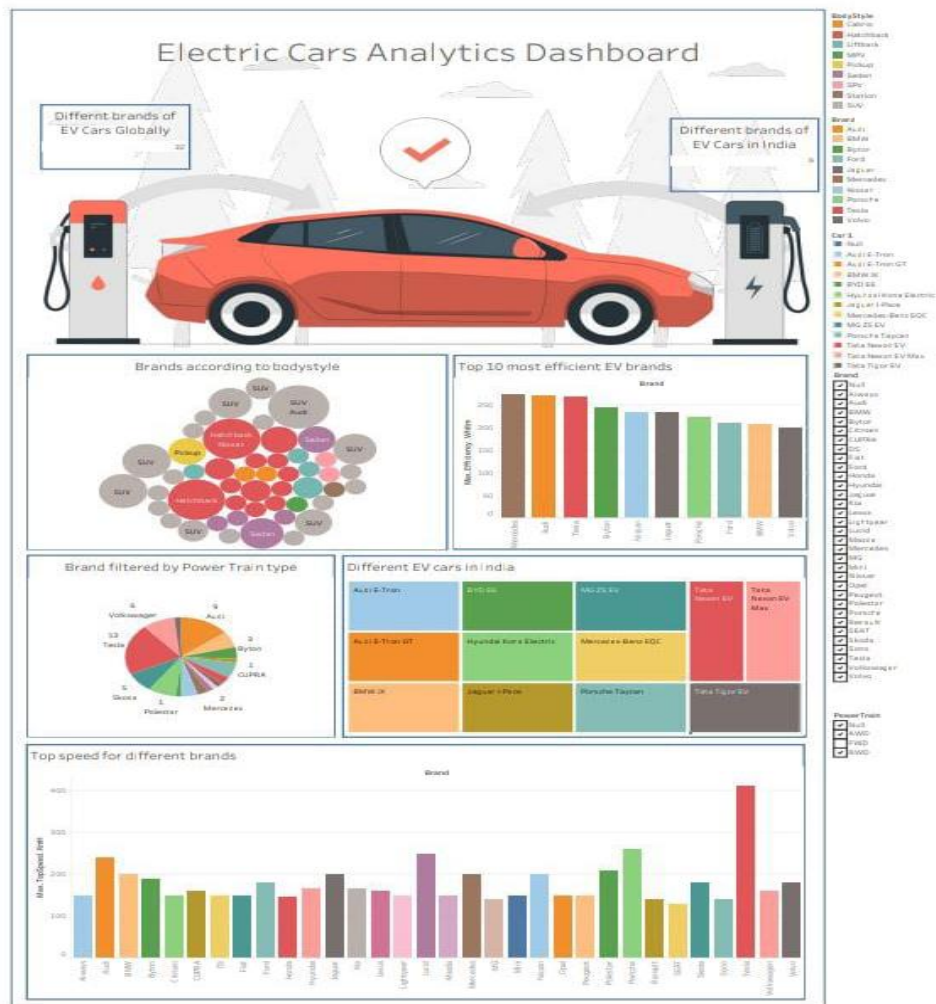
E-mobility and charging networks can be a complex topic that varies from country to country and while the government, technology and infrastructure developments clearly contribute to E-mobility, consumer concerns about electric vehicles appear to be a sticking point for large-scale introduction.



#### ❖ PURPOSE:

The goal of the graduation project is designing understandable and informative visualizations to raise awareness of the current state of e-mobility. The focus will be on the infrastructure side, as this is the key factor which will facilitate confidence in using electric vehicles in Europe while insufficient infrastructures will slow down its adoption. Consequently, this is also boosting demand for electric vehicles as consumers are also growing confidence to take long-distance travel in their EVs.

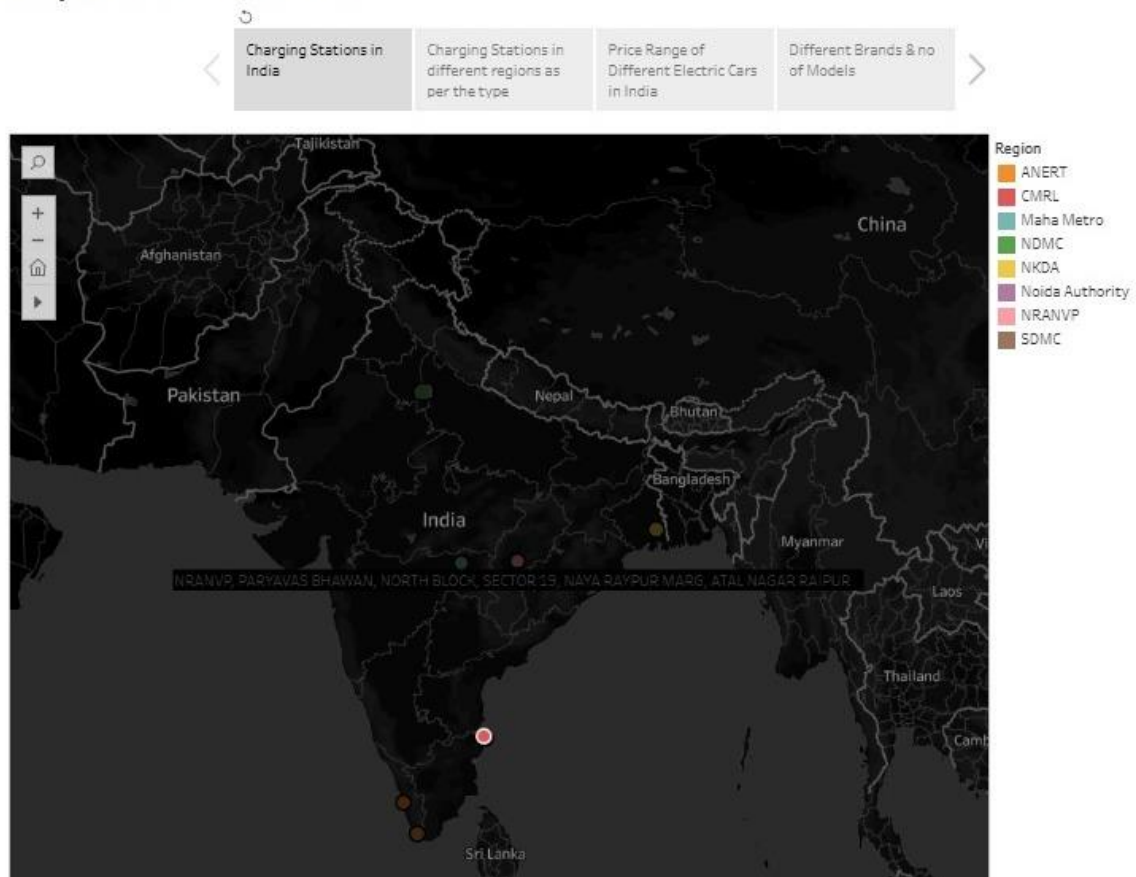
### 3.RESULT:



## Story

## Electric vehicles Analytics Story

## Story of Electric Cars In India



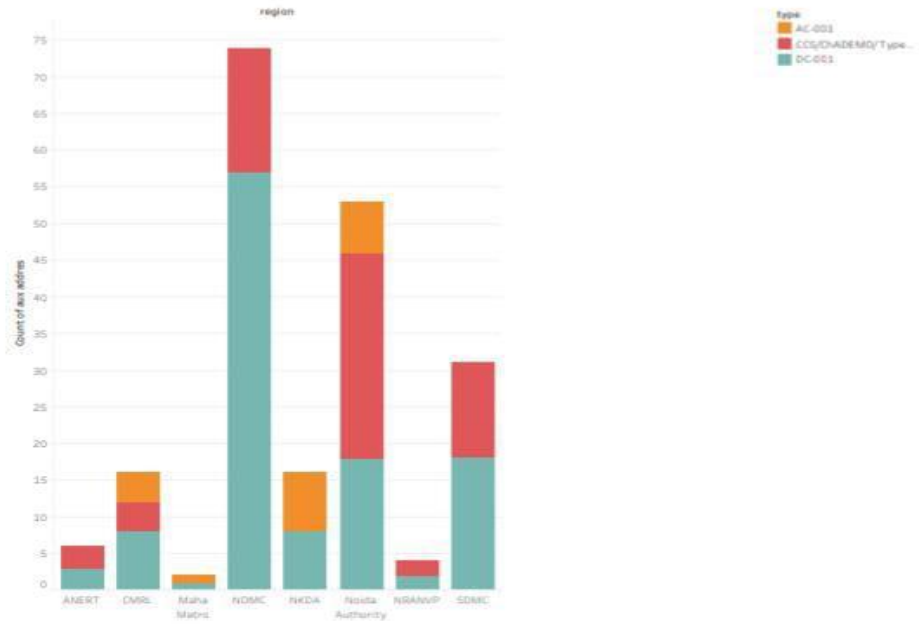
## Story of Electric Cars in India

Charging Stations in India

Charging Stations by Region and Type

Caption as Price of Electric Cars by Differ...

Different Brands and Number of models



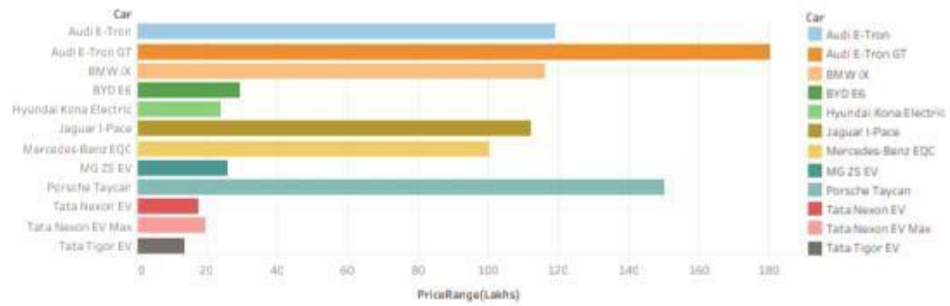
## Story of Electric Cars in India

Charging Stations in India

Charging Stations by Region and Type

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## Story of Electric Cars in India



## 4.ADVANTAGES & DISADVANTAGES:

# Advantages & Disadvantages of Electric Vehicles

droom  
Bridging the dream



## ADVANTAGES



**Doesn't depend on fossil fuels** for your commutation



Electric vehicles are known for their **always-on power delivery**



Electric vehicles **are silent operators**



Running on electricity means **good bye to exhaust gases**. Say hello to clean air!

## DISADVANTAGES



**Priced 30-40% higher** than their regular counterparts



**Charging infrastructure** not adequate



**Driving range** offered by battery technology is **not adequate**



**Battery packs** that power them are **highly susceptible to wear & tear and expensive**

## ADVANTAGES:



An electric car can be a great way for you, as a consumer, to save a lot of money on gas. However, there are so many different reasons why you should invest in an electric car in the modern-day of technology.

## **1. No Gas Required**

Electric cars are entirely charged by the electricity you provide, meaning you don't need to buy any gas ever again. Driving fuel-based cars can burn a hole in your pocket as prices of fuel have gone all-time high. The average American pays about 15 cents a mile to drive a gas-powered vehicle, whereas many electric cars run on five cents a mile. Electricity is largely less expensive than gasoline.

If most people charge their cars in the garage installing a few solar panels, that price can get cut even further, offering savings on powering your entire home. With electric cars, this cost of \$2000 – \$4000 on gas each year can be avoided.

## **2. More Convenient**

The electric vehicle is easy to recharge, and the best part is you will no longer need to run to the fuel station to recharge your car before hitting the road! Even a normal household socket could be used for charging an electric car.

## **3. Savings**

These cars can be full for very low prices, and many new cars will offer great incentives for you to get money back from the government for going green. Electric cars can also be a great way to save money in your own life.

## **4. No Emissions**

The biggest advantage of an electric vehicle is its green credential. Electric cars are 100 percent eco-friendly as they run on electrically powered engines.

It does not emit toxic gases or smoke in the environment as it runs on a clean energy source. They are even better than hybrid cars as hybrids running on gas produce emissions. You'll be contributing to a healthy and green climate.

## **5. Popularity**

EV's are growing in popularity. It is nearly three times as efficient as cars with an internal combustion engine, according to Wikipedia. With popularity comes all new types of cars being put on the market that are unique, providing you with a wealth of choices moving forward.

## **6.Safe to Drive**

Electric cars undergo the same fitness and testing procedures test as other fuel-powered cars. An electric car is safer to use, given their lower center of gravity, which makes them much more stable on the road in case of a collision.

In case an accident occurs, one can expect airbags to open up and electricity supply to cut from the battery. This can prevent you and other passengers in the car from serious injuries. They are even less likely to explode in the absence of any combustible fuel or gas.

## **7. Cost-Effective**

Earlier, owning an electric car would cost a bomb. But with more technological advancements, both cost and maintenance have gone down.

The mass production of batteries and available tax incentives further brought down the cost, thus, making it much more cost-effective. Consult a tax specialist to learn more about any tax credits that might be available to you on the state or federal level.

## **8. Low Maintenance**

Electric cars run on electrically powered engines, and hence there is no need to lubricate the engines, anything related to the combustion engine or a ton of maintenance tasks that are usually associated with a gas engine. Other expensive engine work is a thing of the past. Therefore, the maintenance cost of these cars has come down. You don't need to send it to the service station often as you do for a standard gasoline-powered car.

## **9. Reduced Noise Pollution**

Electric cars put a curb on noise pollution as they are much quieter. Electric motors are capable of providing smooth drive with higher acceleration over longer distances. Many owners of electric cars have reported positive savings of up to tens of thousands of dollars a year.

## **10. Battery Life & Cost**

Batteries are an integral part of an electric vehicle. Most electric vehicle batteries are lithium ones, and their costs are improving every year. The full capacity of a lithium-ion battery cell should be good for 300 to 500 cycles. A good battery could last you up to ten years. With the improving technologies, the cost of these batteries is expected to come down even more.

## **11. Easy Driving**

In the world of automobiles, electric cars have the simplest driving method. Commercial electric cars come with a transmission comprising of only one really long gear and also don't suffer from the stalling

problem as petrol cars do. This effectively eliminates the need to add a clutch mechanism to prevent that from happening. Therefore, you can operate an electric car with just the accelerator pedal, brake pedal and steering wheel.

Another really useful feature is regenerative braking. In normal cars, the braking process is a total wastage of kinetic energy that gets released as frictional heat. However, in an electric vehicle, the same energy is used to charge the batteries. Considering the demand for oil will only be going up as the supplies run out, an electric car will most likely be the normal mode of transportation in the coming future.

Companies like Nissan and Tesla offer great electric models with an outstanding amount of benefits for people who decide to invest. You'll be saving not only yourself but also your family a huge amount of money. The environmental impact of an electric car is zero, as well, meaning you're reducing your carbon footprint and positively affecting the economy.

## **DISADVANTAGES:**

Although the evidence of the positives has become very clear, there are also some downsides that each individual needs to consider before they decide to make an electric car their next big investment. These reasons are:

### **1. Recharge Points**

Electric fueling stations are still in the development stages. Not a lot of places you go to on a daily basis will have electric fueling stations

for your vehicle, meaning that if you're on a long trip or decide to visit family in a rural or suburban area and run out of charge, it may be harder to find a charging station. You may be stuck where you are. However, until charging stations are more widespread, be sure to have a charging station maps where you live and where you frequently go so that you'll be able to charge your new EV when you need to.

## **2. The Initial Investment is Steep**

As EVs are very new, you may be surprised when you take a look at the sticker price for EVs. Even the more affordable brands can be around \$30,000 to \$40,000.

If you're looking for a luxury option, you may be paying \$80,000 or even more. Though technology is advancing and the price to produce electric cars continues to drop, you still have to pay \$10,000 to \$50,000 more for an EV than for a gas-powered car.

## **3. Electricity isn't Free**

Electric cars can also be a hassle on your energy bill if you're not considering the options carefully. If you haven't done your research into the electric car you want to purchase, then you may be making an unwise investment. Sometimes electric cars require a huge charge to function properly – which may reflect poorly on your electricity bill each month.

## **4. Short Driving Range and Speed**

Electric cars are limited by range and speed. Most of these cars have a range of about 50-100 miles and need to be recharged again. You just can't use them for long journeys as of now, although it is expected to improve in the future.

## **5. Longer Recharge Time**

While it takes a couple of minutes to fuel your gasoline-powered car, an electric car takes about 4-6 hours and sometimes even a day to get fully charged. Therefore, you need dedicated power stations as the time taken to recharge them is quite long. Thus, the time investment and necessary planning do put some people off. There are some kits that can cut the charging time down. But again, that is going to be an additional investment. So consider that, too.

## **6. Silence as a Disadvantage**

Silence can be a bit disadvantage as people like to hear the noise if they are coming from behind them. An electric car is, however, silent and can lead to accidents in some cases.

## **7. Normally 2 Seaters**

Most of the electric cars available today are small and 2 seated only. They are not meant for the entire family, and a third person can make a journey for the other two passengers a bit uncomfortable.

## **8. Battery Replacement**

Depending on the type and usage of battery, batteries of almost all electric cars are required to be changed every 3-10 years.

## **9. Not Suitable for Cities, Facing Shortage of Power**

As electric cars need the power to charge up, the cities that already facing acute power shortages are not suitable for electric cars. The consumption of more power would hamper their daily power needs.

## **10. Lower Amount of Choices**

The market today for electric cars is expanding, with no signs of slowing down. However, the truth is that there are fewer options to customize and choose the aesthetics of your EV. At the same time, the vast amount of customization is available with traditional cars. This is likely to change over time, but for many people, it is going to be a disadvantage.

## **11. Minimal Amount of Pollution**

Electric vehicles are also not 100% emission-free; they cause a little amount of pollution indirectly. The batteries and electricity needed for charging are not necessarily generated from renewable energy sources.

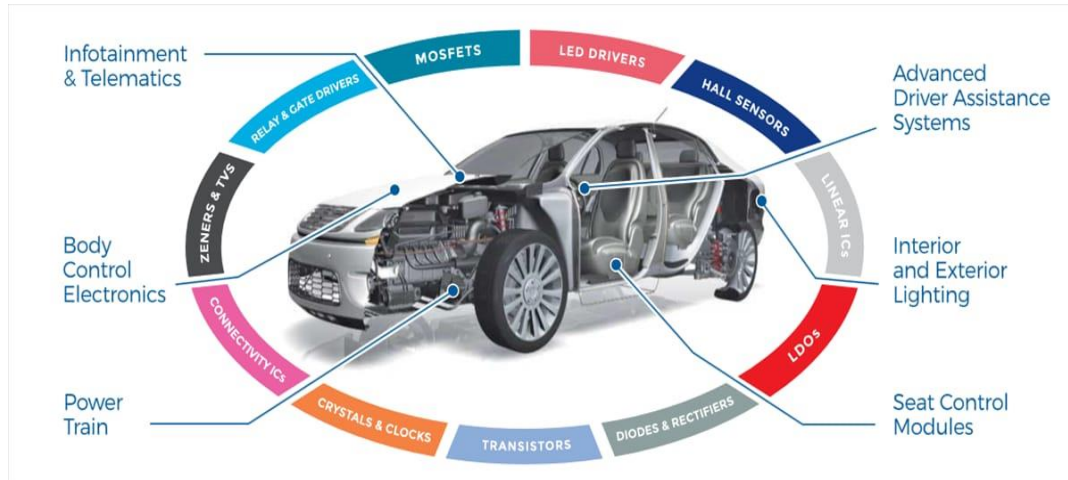
## **12. Some Governments Do Not Provide Money Saving Initiatives to Encourage You to Buy an Electric Car**

Just because there is a variety of factors doesn't mean they have to be overwhelming. Doing a fair bit of research into different models, and maybe even hybrids will help you make an accurate decision moving forward. However, no matter how you look at it, an electric car can save our precious environment.

## **5.APPLICATIONS:**

An electric vehicle (EV) is a vehicle that runs on electric energy, powered by a motor. Since they do not emit exhaust gas, they are rapidly gaining popularity in recent years as eco-friendly vehicles. It is equipped with a high capacity lithium-ion battery pack and a high-power motor for driving. The output from the lithium-ion battery is DC current, but the drive motor of electric vehicles is an AC motor. Therefore, an inverter that converts the 'DC current into three-phase AC must also be installed. A harness is also essential to ensure the safe and reliable transmission of high-voltage electricity. Electric vehicles use the back

EMF from the motor to save energy. Therefore, in the development of motors and inverters for electric vehicles, it is also necessary to conduct tests using regenerative DC power supplies.



The most common battery voltage installed in electric vehicles is around 300 V to 400 V. Motor, and battery capacities are expected to become high voltage and high power in the future in order to improve driving range. Matsusada Precision has a models of DC-stabilized power supplies and regenerative power supplies that can be used to evaluate various electrical components such as motors, inverters, and DC/DC converters. We also have a models that can handle high voltages of 800 V or more, so we can make proposals in anticipation of higher voltages.

## 6.CONCLUSION:

The progress that the electric vehicle industry has seen in recent years is not only extremely welcomed, but highly necessary in light of the increasing global greenhouse gas levels. As demonstrated within the economic, social, and environmental analysis sections of this web page, the benefits of electric vehicles far surpass the costs. The biggest obstacle to the widespread adoption of electric-powered transportation is



cost related, as gasoline and the vehicles that run on it are readily available, convenient, and less costly. As is demonstrated in our timeline, we hope that over the course of the next decade technological advancements and policy changes will help ease the transition from traditional fuel-powered vehicles. Additionally, the realization and success of this industry relies heavily on the global population, and it is our hope that through mass marketing and environmental education programs people will feel incentive and empowered to drive an electric-powered vehicle. Each person can make a difference, so go electric and help make a difference.



## 1.EV Diffusion in the World

Both developed and developing countries have become more active in EV introduction and diffusion. In developed countries, the government has led the promotion of next-generation environment-friendly vehicles. In the industrial world, not only conventional auto manufacturers but also large and small enterprises have joined the EV business as new business opportunities. In accordance with the implementation of many pilot projects and EV related events, public expectation on EVs is high. However, there is no clear indication for full-fledged diffusion. This is because of high prices of EVs, limited models, lack of charging infrastructure, and lack of trust in the market in terms of life span of EVs and safety. On the other hand, big auto manufacturers have become bolder in EV development, which is seen to address the above-mentioned problems and accelerate EV diffusion.

## **2) Significance of EVs in Lao PDR**

Lao PDR can gain significant benefits from EV diffusion. One of the biggest benefits is energy saving. If all motorcycles and mini buses and 50% of other types of vehicles are replaced with EVs by 2030, Lao PDR will save USD938 million from the reduction of fossil fuel import by 2030. Moreover, the saving from fossil fuel will be USD6,456 million in the period of 2015 – 2030. On the other hand, the electric consumption of EVs by 2030 is only USD183 million, and the additional electric demand due to EV introduction is less than 7% of electric generation, i.e. the additional investment on power plant is unnecessary for EV diffusion. The environmental benefit is clear. The emission of PM, NO<sub>x</sub>, CO and THC will be zero. Regarding the CO<sub>2</sub> which causes climate change, the energy sources of Lao PDR is mainly hydro-power plant, so that the grid emission is zero. Thus, EVs in Lao PDR also does not emit CO<sub>2</sub>. This is very little case in the world. The zero emission transport system will bring the positive impact on the society. The traffic

pollution such as air pollution and noise will be disappeared. The attractiveness of cities in Lao PDR (tranquil and compact urban area which surrounded by historical heritage and nature) will be increased. The image of Lao PDR will be improved. The tourism sector which is one of the main industry of Lao PDR will be further developed. In addition, EV can change the value chain of vehicles which create new business opportunities.

### **3) Establish a System for Accepting EVs**

It is not necessary for Lao PDR to participate to the production and sales of EVs, but Lao PDR needs to prepare to introduce various EVs and related infrastructures appropriately which appear in the global market one after another. EVs have been already introduced by the private sector without related regulations. However, it is important to establish a basic system to avoid the inappropriate operation of those EVs and to promote appropriate information of EVs to the society.

Development situation of EVs are varied by the types of EVs. While small types of EVs (motorcycle and mini bus) already have an economical advantage against ICE vehicle through this life-cycle, larger types of EVs (larger than sedan type) still cannot compare with ICE vehicles in terms of vehicle operating cost due to high battery price of EVs. Therefore, the government in developed countries generally subsidize EVs. In developing countries, imported vehicles are imposed high tax rates. So the reduction of tax rates on EVs has the same effect as subsidy. Regarding large buses which play important role for public transport system, there are many trials, but it cannot be feasible without huge subsidy. Thus, it is important to consider the different development direction for different types of EVs.

## 7.FUTURE SCOPE:

Electric vehicles (EV) is the future not only of transport but of our planet. Can electric vehicles ever face a more serious form of gridlock however? These vehicles are plugged into a charging station at a low voltage. There are no emissions released from these vehicles. But what if you have an electric vehicle that gets charged up from home electricity or by solar energy. What if you can use this charge to power your home and your garage. You will no longer need to fear the impact of fuel exporters. This means that electric vehicle drivers will be looking at long trips and camping. A home built electric vehicle will reduce the carbon footprint of the family and it will also lower electricity bills. The future potential of electric vehicles is enormous. The obvious starting point for these vehicles is the charging station. This is however only the first step in a potential journey which will see charge Banks and other industrial areas as well as homes and cities. The future scope of electric vehicles is therefore massive.



The technology for electric vehicles has been around since the 70's in labs such as NASA. The present day technology will no doubt be far more advanced in a few years time. Some believe that we will soon see electric vehicles that can power themselves by harvesting energy from their environment. Such vehicles will require very little maintenance and can even run off alternative energy sources such as wind.

One problem faced by electric vehicles is that they do not fit into many parking spaces. As advances are made in technology, this problem will seem to be lessened with time. Other obstacles are also that electric vehicles use electricity which results in a pollution issue. There are solutions though, for both these issues. The charging stations for electric vehicles offer a way in which pollution can be reduced and also help to create jobs in regions where employment is little.

The future scope of electric vehicles is therefore enormous. We have already seen that technology for these vehicles is here and becoming far more advanced. We now know that such vehicles can provide us with great flexibility and we will soon see that potential. It will also be interesting to see the impact of regulations which will come into force from the EU and US. These regulations are set to reduce petrol engine vehicles use. As electric vehicles grow in popularity, so will the need to reduce their use. It is clear that there will be a need to develop new zero emission technologies.

This study provides a detailed information on the future scope and the historical data analysis. It concludes by looking at the present prospects and gives a good guide as to how far technology has come. Future scope is estimated to continue growing rapidly as electric vehicles become more popular. More detailed information can be found in the full report which is available to download from the website. This provides an outline of the main points covered in the report.

The market research report provides a comprehensive overview of the current trends in the global market. It discusses the present day technology, the outlook for the future and the position of electric vehicles in this market segmentation. The analysis looked at four key areas. These are power source, battery technology, charging systems and the regional analysis. Power source is one of the most important aspects and the global market segmentation is analyzed with detailed information. The present day electric vehicles are using different sources such as the wind power, solar power and hydroelectric power. Most of these technologies have evolved in Africa. Some of the countries which



have developed these technologies are Morocco, South Africa, Tanzania, Namibia, Zimbabwe and Brazil. It should be noted that these nations all have very low fuel costs and this means that it is very affordable to install a charging system on the cars.

Batteries have been the primary concern all over the world. With the development in technology, lithium-ion batteries are replacing the ordinary alkaline batteries. This has posed a serious challenge to the manufacturers. The market research report offers details on the major key players of this industry and the various plans that are taken by them to overcome the challenges.

The third area in which the report outlines the future scenario is the charging systems. Most of the vehicles today have an electrical charge system. It is the electricity consumption by the user that determines the size of the battery pack. The global market segmentation gives details on the charging systems and the reasons why the manufacturers have decided to adopt these or not.

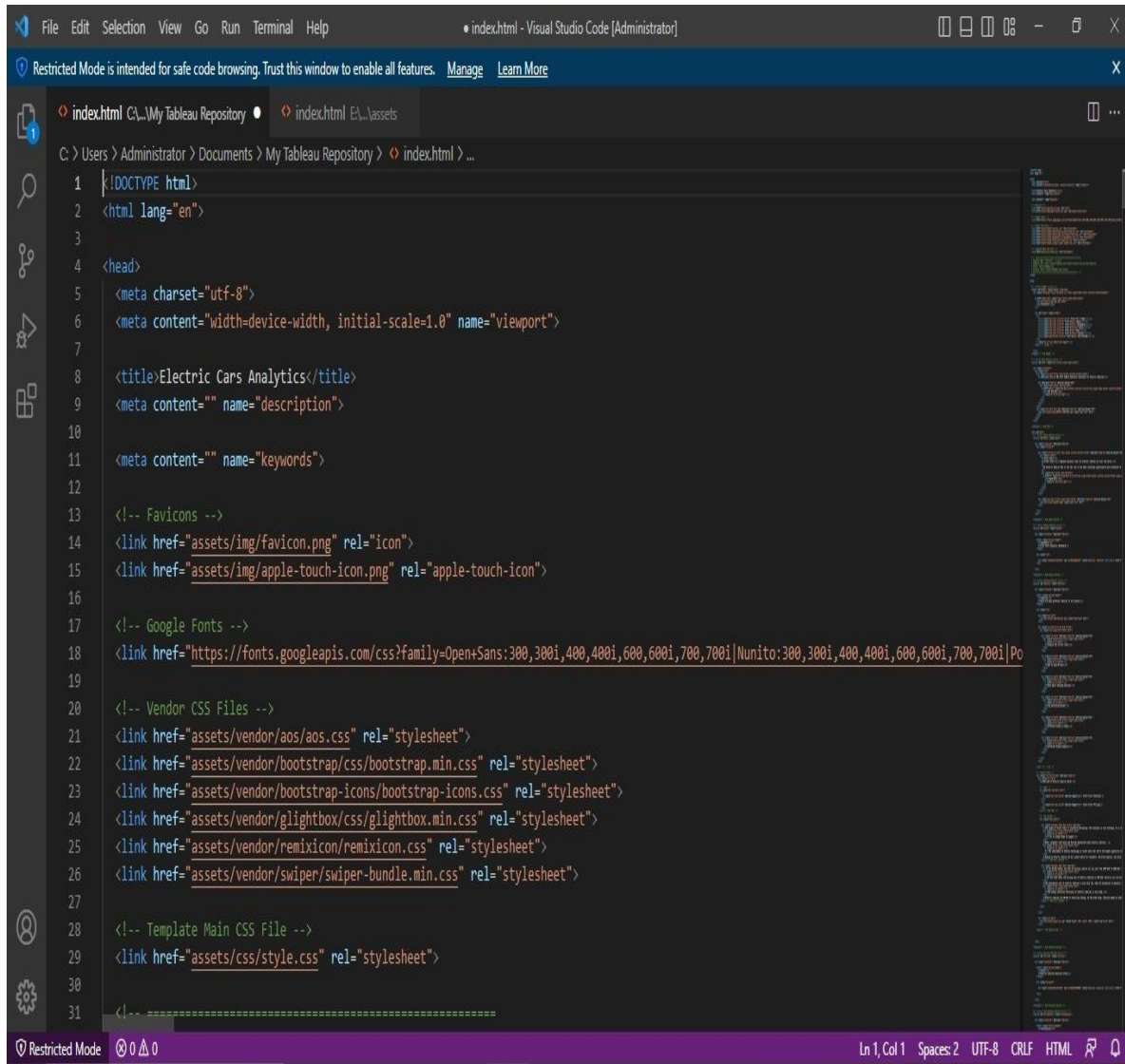
## 8.APPENDIX:

This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances. An automotive-type vehicle for on-road use, such as passenger

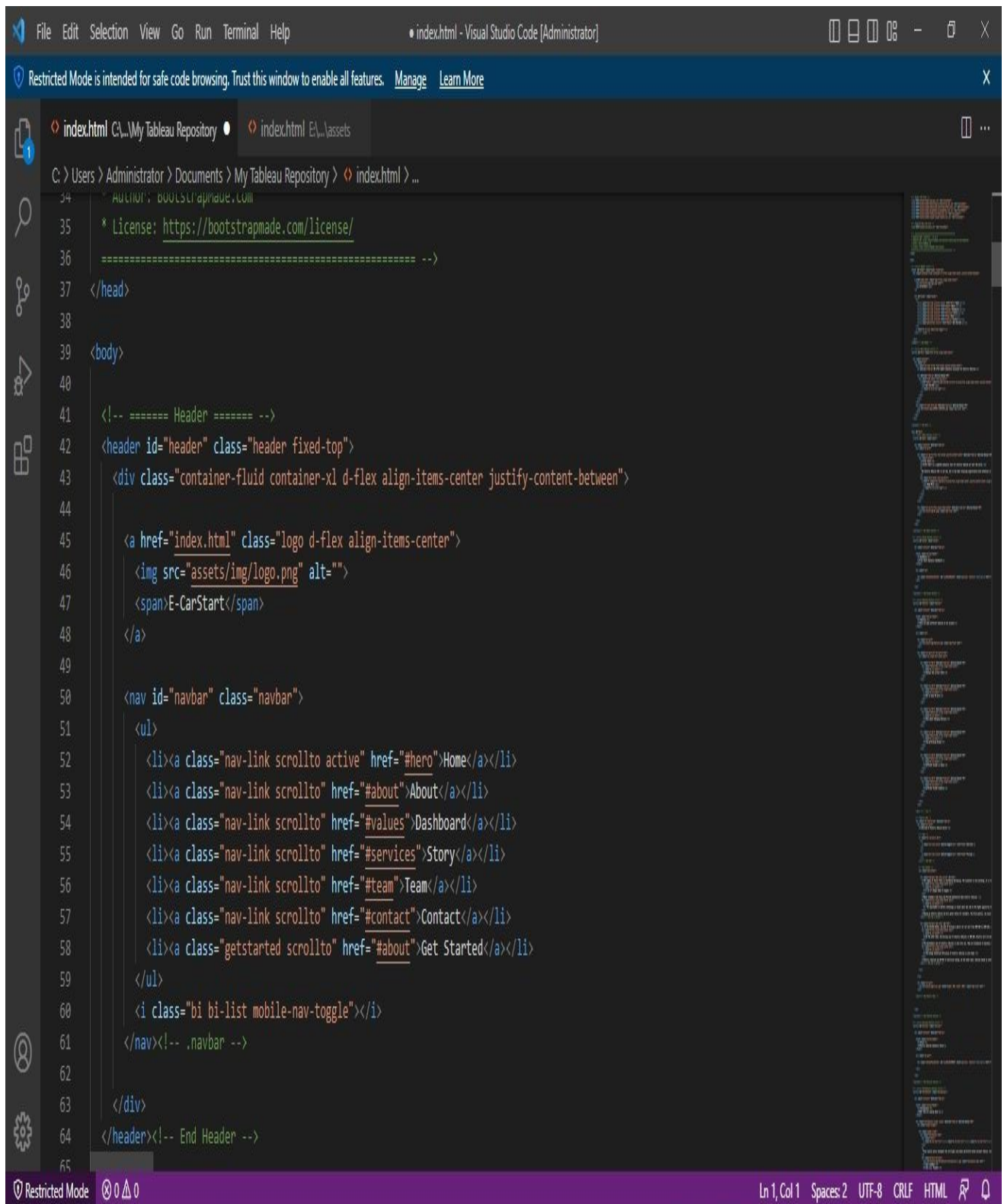
automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, a fuel cell, a photovoltaic array, or another source of electric current. Plug-in hybrid

electric vehicles are electric vehicles having a second source of motive power. Off-road, selfpropelled electric mobile equipment, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground

support equipment, tractors, boats and the like, are not considered electric vehicles.



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8   <title>Electric Cars Analytics</title>
9   <meta content="" name="description">
10
11  <meta content="" name="keywords">
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18  <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|Po
19
20  <!-- Vendor CSS Files -->
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22  <link href="assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
23  <link href="assets/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">
24  <link href="assets/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">
25  <link href="assets/vendor/remixicon/remixicon.css" rel="stylesheet">
26  <link href="assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">
27
28  <!-- Template Main CSS File -->
29  <link href="assets/css/style.css" rel="stylesheet">
30
31  <!-- =====
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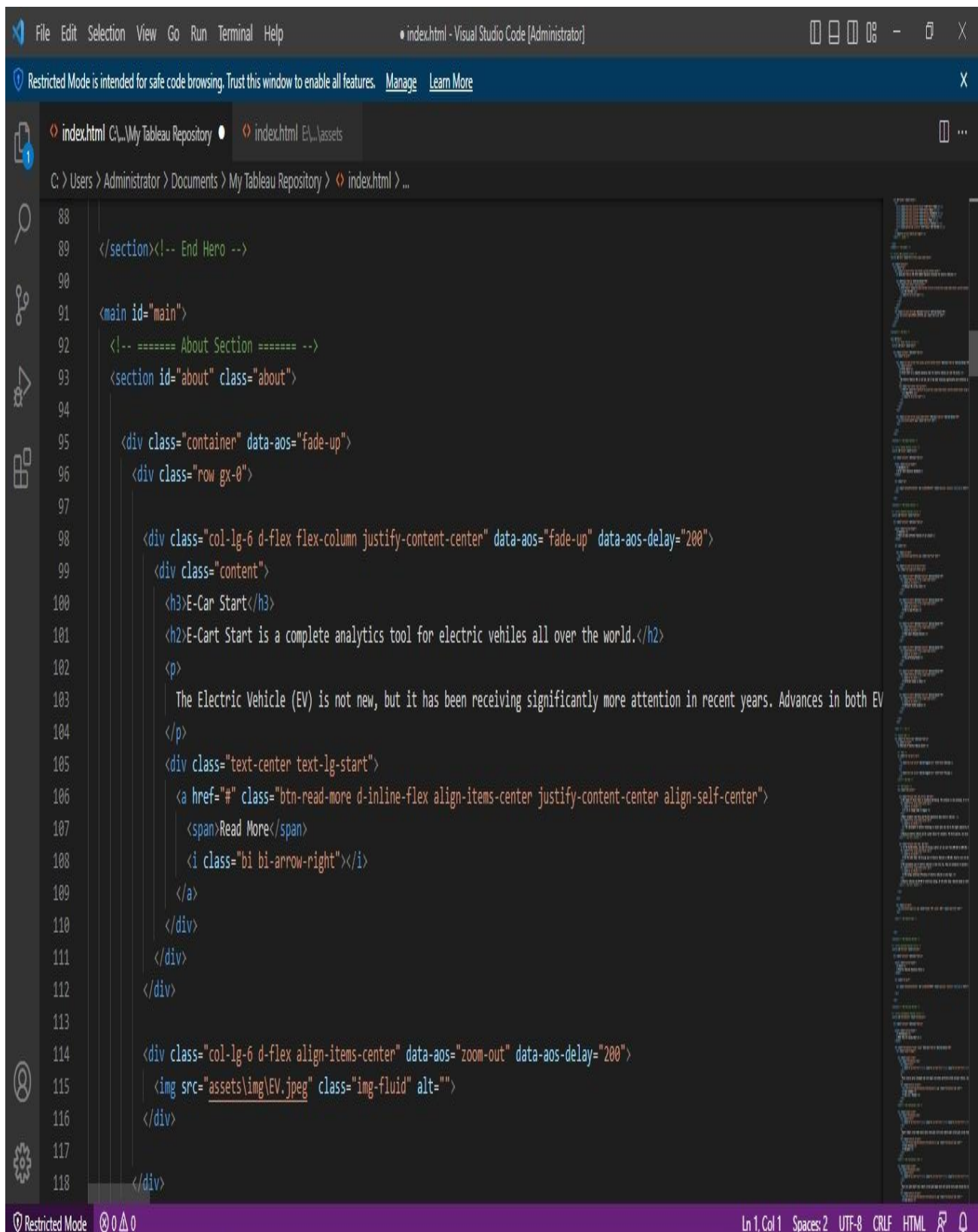
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```
61     </nav><!-- .navbar -->
62
63   </div>
64 </header><!-- End Header -->
65
66 <!-- ===== Hero Section ===== -->
67 <section id="hero" class="hero d-flex align-items-center">
68
69   <div class="container">
70     <div class="row">
71       <div class="col-lg-6 d-flex flex-column justify-content-center">
72         <h1 data-aos="fade-up">We offer modern Analytics solutions for Electric Vehicles</h1>
73
74         <div data-aos="fade-up" data-aos-delay="600">
75           <div class="text-center text-lg-start">
76             <a href="#about" class="btn-get-started scrollto d-inline-flex align-items-center justify-content-center align-self-center">
77               <span>Get Started</span>
78               <i class="bi bi-arrow-right"></i>
79             </a>
80           </div>
81         </div>
82       </div>
83       <div class="col-lg-6 hero-img" data-aos="zoom-out" data-aos-delay="200">
84         
85       </div>
86     </div>
87   </div>
88
89 </section><!-- End Hero -->
90
91 <main id="main">
```

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```
119     </div>
120
121   </section><!-- End About Section -->
122
123   <!-- ===== Values Section ===== -->
124   <section id="values" class="values">
125
126     <div class="container" data-aos="fade-up">
127
128       <header class="section-header">
129         <h2>Dashboard</h2>
130         <p>E-Car Start Analytics Dashboard</p>
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144
145     <div class="container" data-aos="fade-up">
146
147       <header class="section-header">
148         <h2>Features</h2>
149       <p>There are many different features of our project</p>
```

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

150 </header>

151

152 <div class="row">

153

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

155 

156 </div>

157

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

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

160

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

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

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

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

165 </div>

166 </div>

167

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

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

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

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

172 </div>

173 </div>

174

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

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

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

178 <h3>Know about Charging Stations</h3>

179 </div>

180 </div>

181 </div>

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187 </div>
188
189     <div class="col-md-6" data-aos="zoom-out" data-aos-delay="600">
190     <div class="feature-box d-flex align-items-center">
191         <i class="bi bi-check"></i>
192         <h3>different brands in India</h3>
193     </div>
194 </div>
195
196     <div class="col-md-6" data-aos="zoom-out" data-aos-delay="700">
197     <div class="feature-box d-flex align-items-center">
198         <i class="bi bi-check"></i>
199         <h3>different brands Globally</h3>
200     </div>
201 </div>
202
203 </div>
204 </div>
205
206 </div> <!-- / row -->
207
208 <!-- Feature Tabs -->
209 <div class="row feture-tabs" data-aos="fade-up">
210     <div class="col-lg-6">
211         <h3>Overview of Electric Vehicle Sector</h3>
212
213         <!-- Tabs -->
214         <ul class="nav nav-pills mb-3">
215             <li>
```

Ln 1, Col 1 Spaces: 2 UTF-8 CRLF HTML

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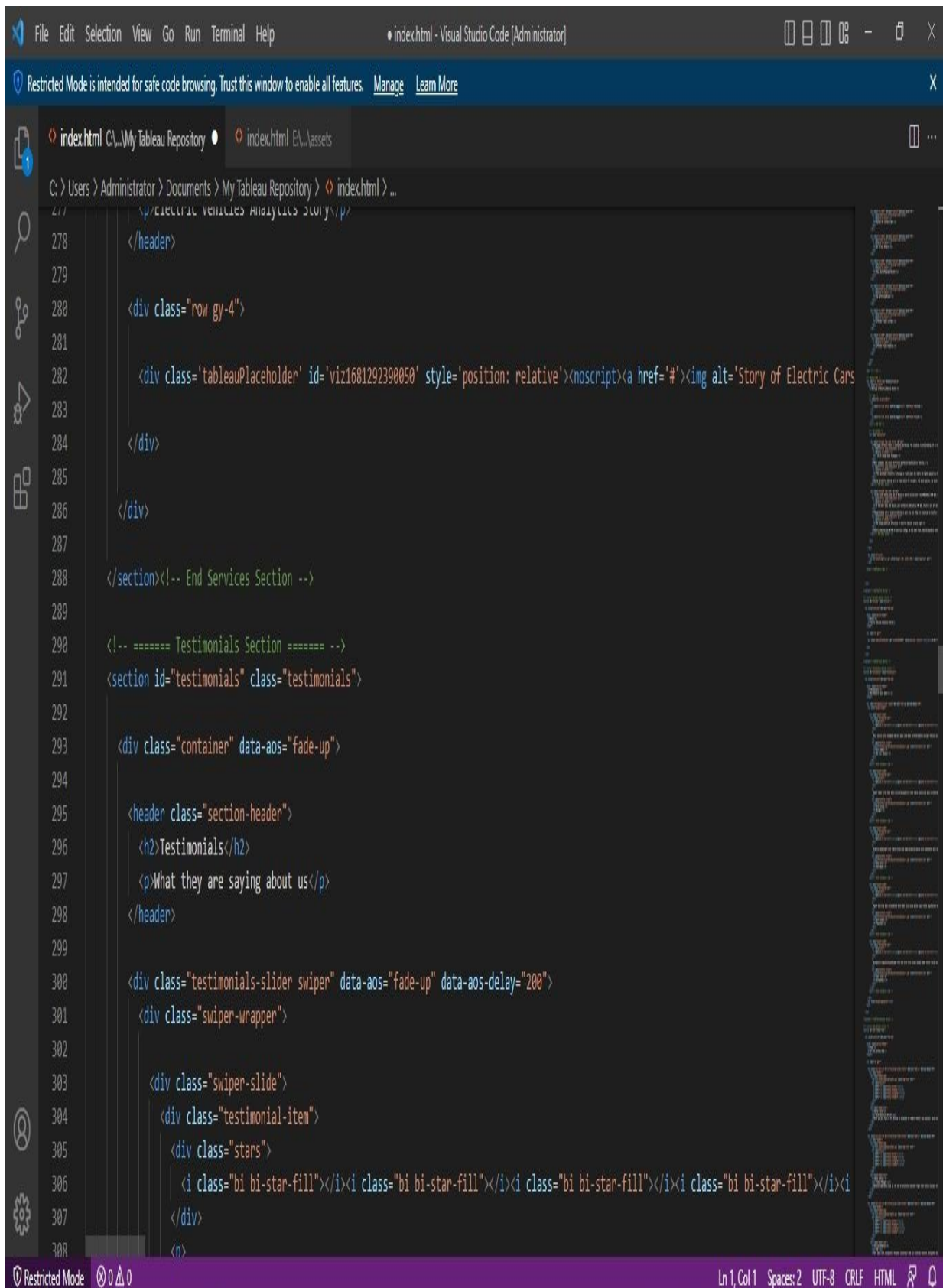
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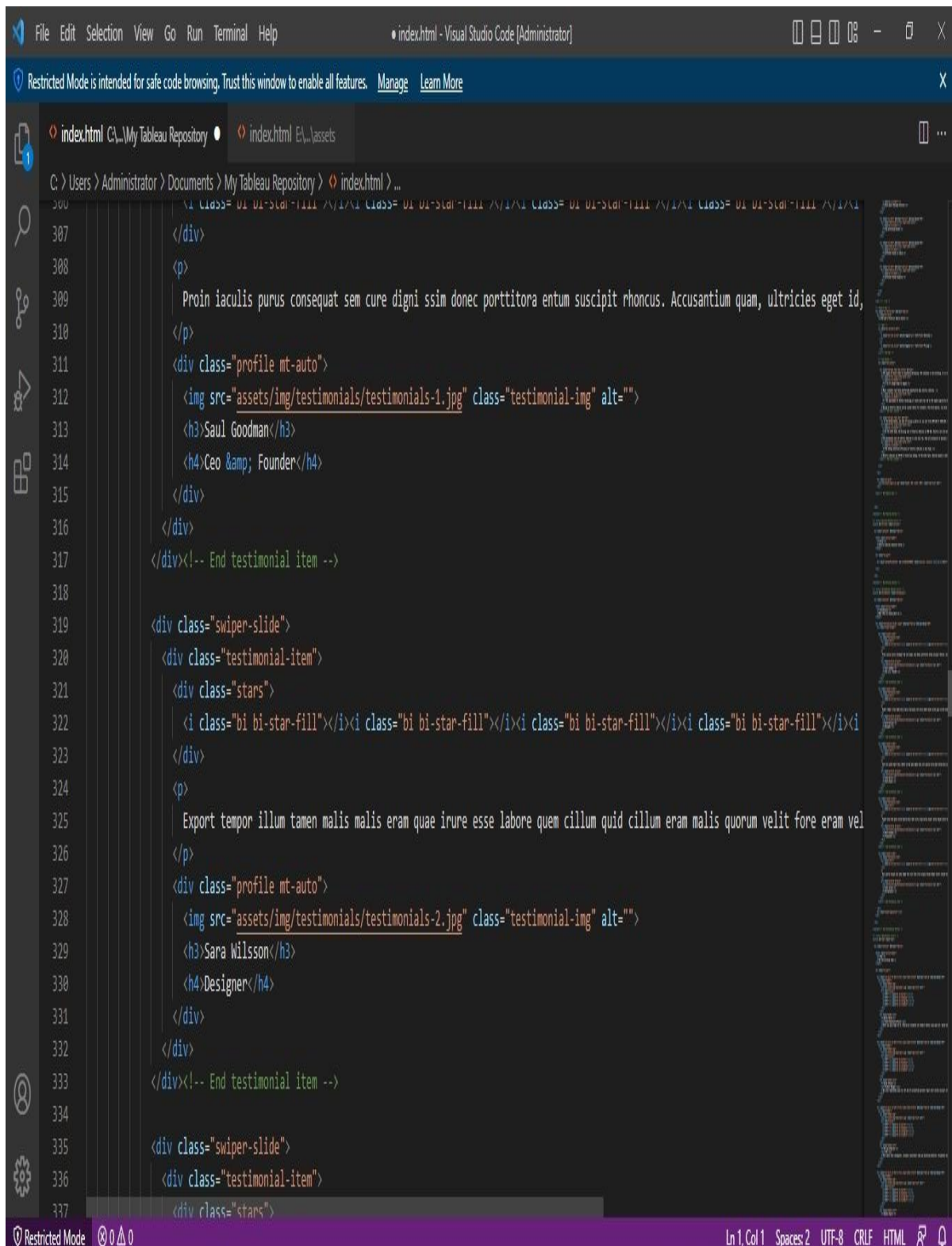
index.html C:\...My Tableau Repository • index.html E:\...assets

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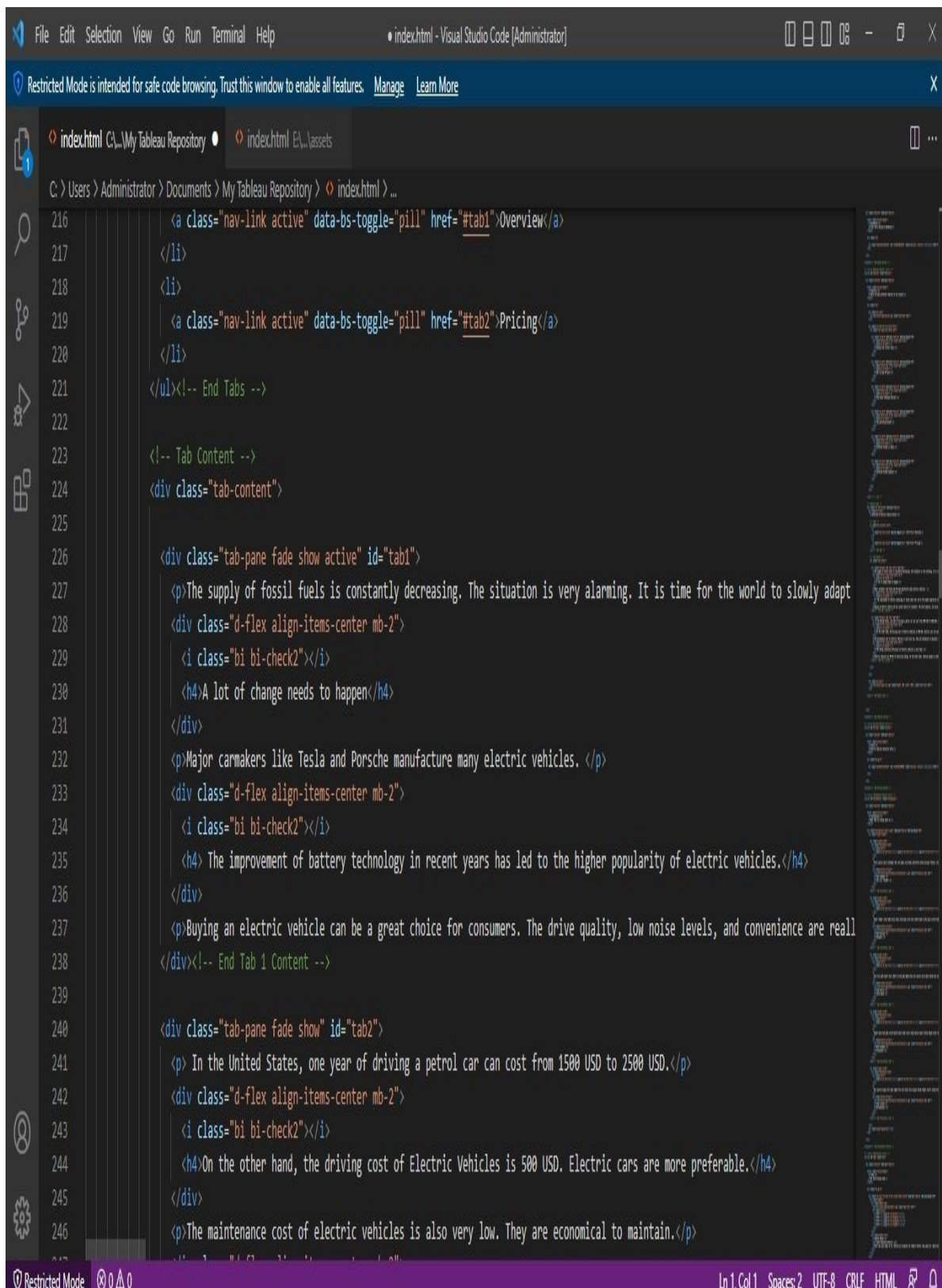
247 <div class="d-flex align-items-center md-2 >  
248 <i class="bi bi-check2"></i>  
249 <h4>The energy conversion efficiency of electric vehicles is also high.</h4>  
250 </div>  
251 <p>Electric vehicles use 60-70% of electrical energy. On the other hand, vehicles based on internal combustion engines have an ef  
252 </div><!-- End Tab 2 Content -->  
253  
254 </div>  
255  
256 </div>  
257  
258 <div class="col-lg-6">  
259   
260 </div>  
261  
262 </div><!-- End Feature Tabs -->  
263  
264  
265  
266 </div>  
267  
268 </section><!-- End Features Section -->  
269  
270 <!-- ===== Services Section ===== -->  
271 <section id="services" class="services">  
272  
273 <div class="container" data-aos="fade-up">  
274  
275 <header class="section-header">  
276 <h2>Story</h2>  
277 <p>Electric vehicles Analytics Story</p>  
278 </header>

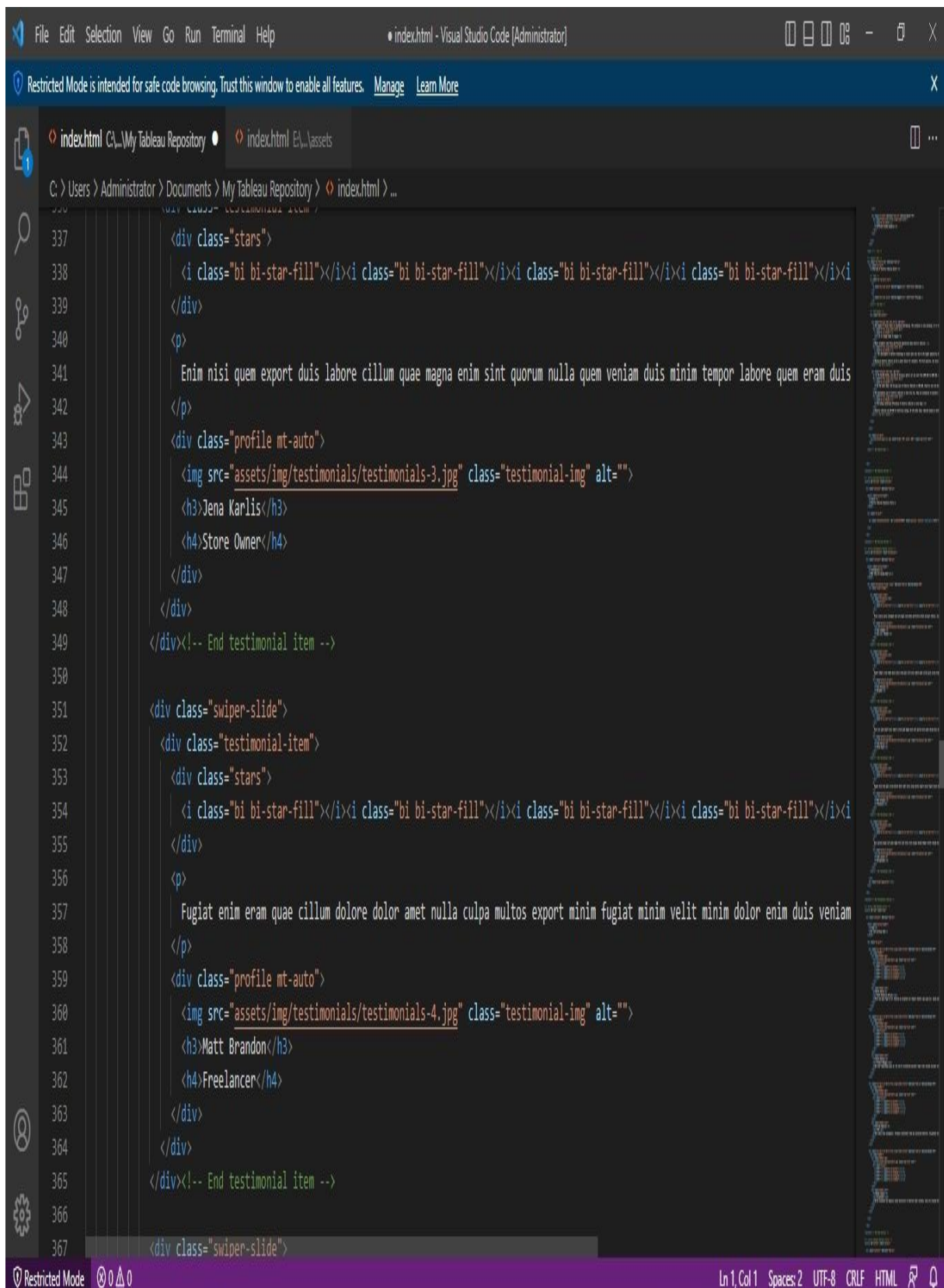
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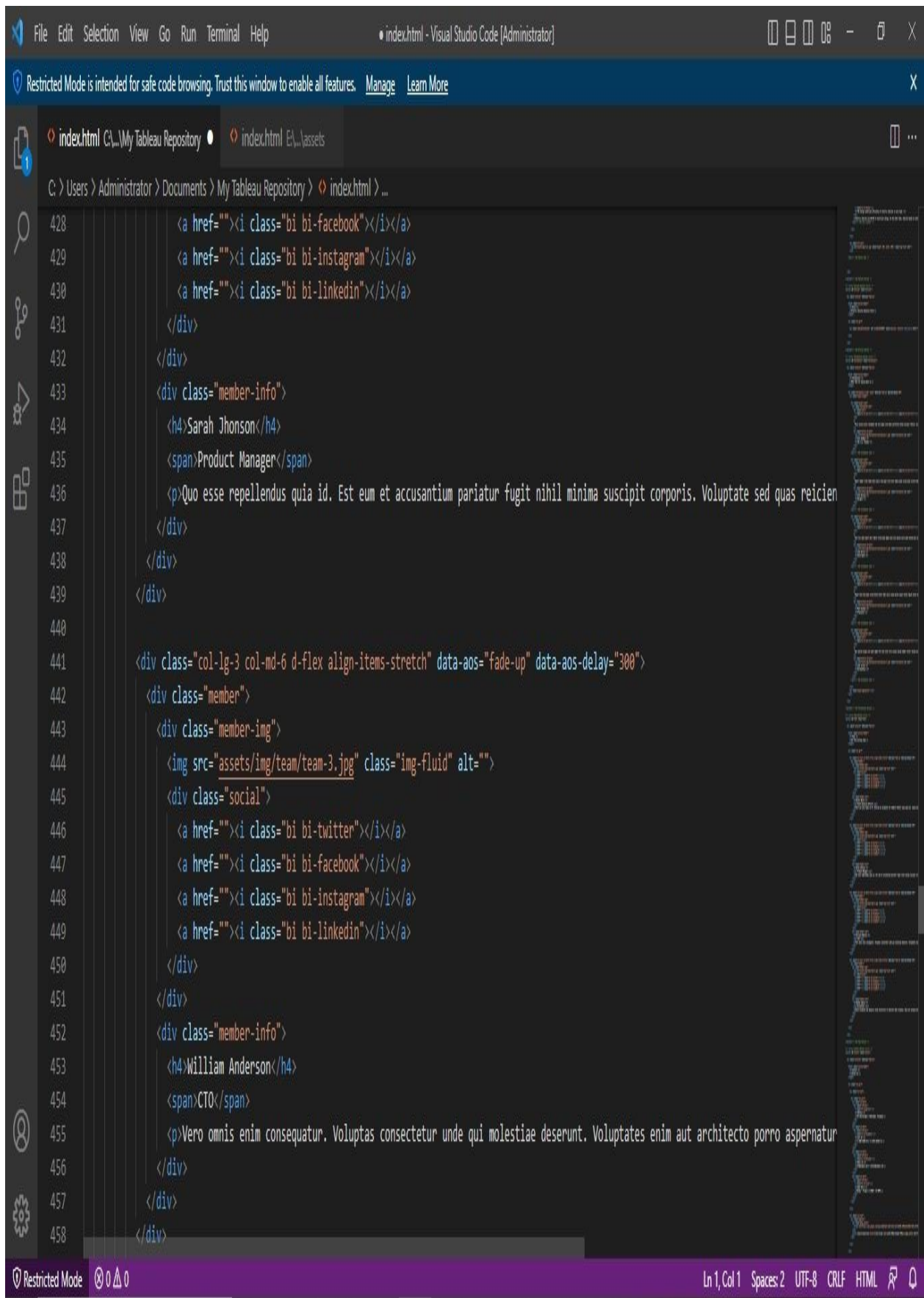
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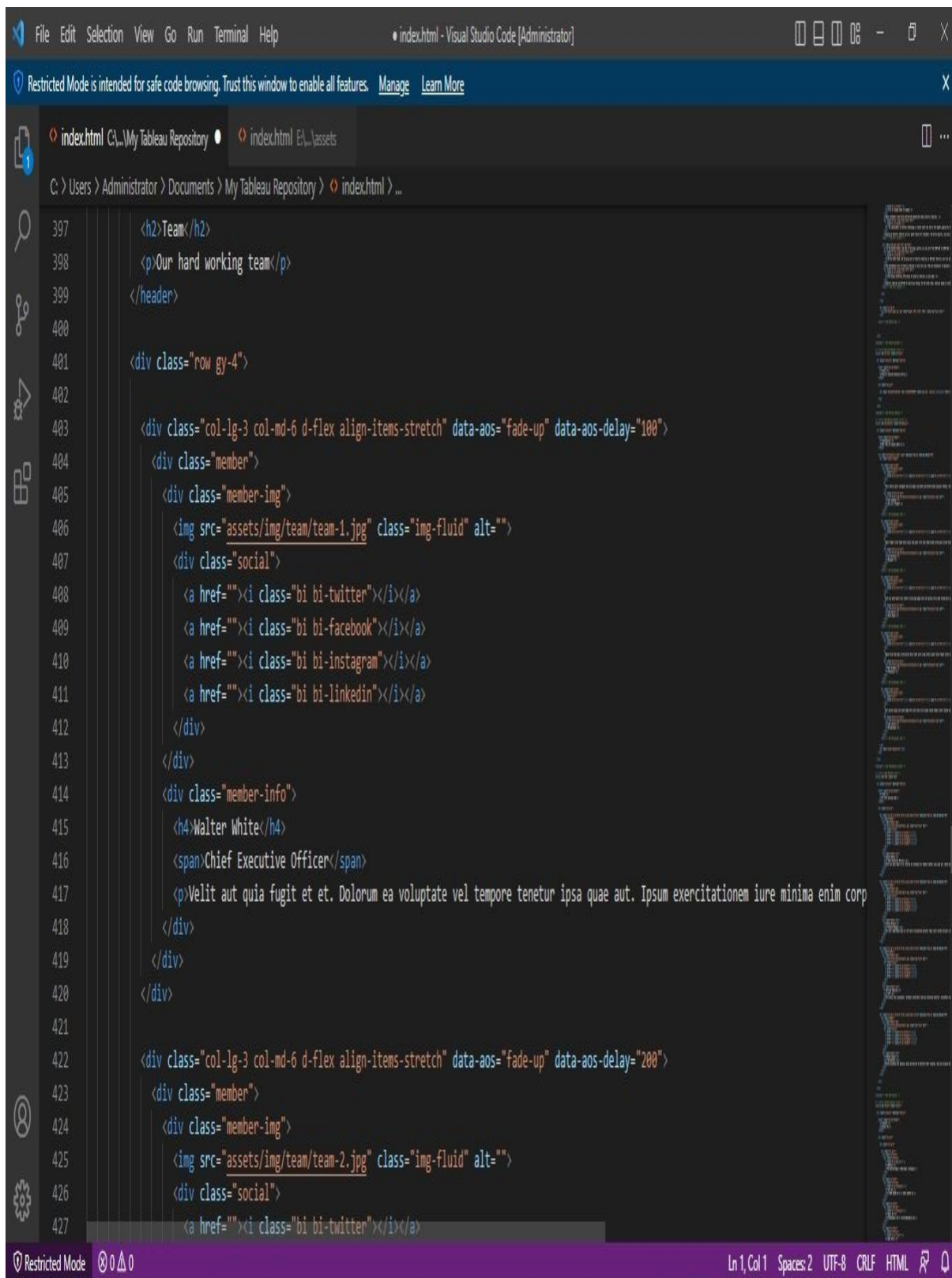
C:\Users\Administrator\Documents\My Tableau Repository\index.html > ...

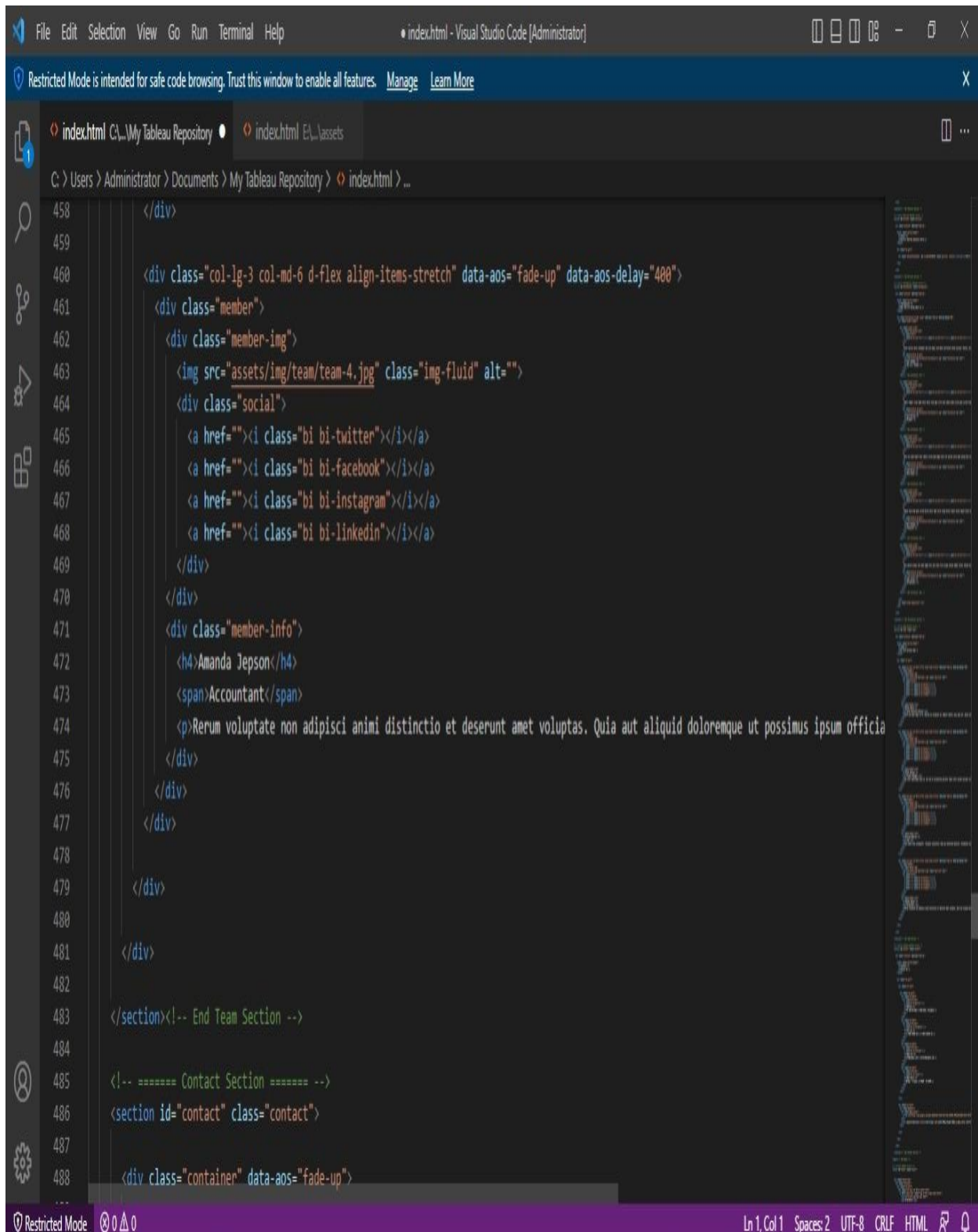
```
367     <div class="swiper-slide">
368     <div class="testimonial-item">
369         <div class="stars">
370             <i class="bi bi-star-fill"></i><i class="bi bi-star-fill"></i><i class="bi bi-star-fill"></i><i class="bi bi-star-fill"></i><i
371         </div>
372         <p>
373             Quis quorum aliqua sint quem legam fore sunt eram irure aliqua veniam tempor noster veniam enim culpa labore duis sunt culpa nu
374         </p>
375         <div class="profile mt-auto">
376             
377             <h3>John Larson</h3>
378             <h4>Entrepreneur</h4>
379         </div>
380     </div>
381 </div><!-- End testimonial item -->
382
383 </div>
384 <div class="swiper-pagination"></div>
385 </div>
386
387 </div>
388
389 </section><!-- End Testimonials Section -->
390
391 <!-- ===== Team Section ===== -->
392 <section id="team" class="team">
393
394     <div class="container" data-aos="fade-up">
395
396         <header class="section-header">
397             <h2>Team</h2>
```

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

489

490 <header class="section-header">

491 <h2>Contact</h2>

492 <p>Contact Us</p>

493 </header>

494

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

496

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

498

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

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

501 <div class="info-box">

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

503 <h3>Address</h3>

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

505 </div>

506 </div>

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

508 <div class="info-box">

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

510 <h3>Call Us</h3>

511 <p>+1 5589 55488 55<br>+1 6678 254445 41</p>

512 </div>

513 </div>

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

515 <div class="info-box">

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

517 <h3>Email Us</h3>

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

519

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```
546 </section><!-- End Contact Section -->
547
548 </main><!-- End #main -->
549
550 <!-- ===== Footer ===== -->
551 <footer id="footer" class="footer">
552
553
554 <div class="footer-top">
555 <div class="container">
556 <div class="row gy-4">
557 <div class="col-lg-5 col-md-12 footer-info">
558 <a href="index.html" class="logo d-flex align-items-center">
559 
560 <span>E-CarStart</span>
561 </a>
562 <p>We offer modern Analytics solutions for Electric Vehicles.</p>
563 <div class="social-links mt-3">
564 <a href="#" class="twitter"><i class="bi bi-twitter"></i></a>
565 <a href="#" class="facebook"><i class="bi bi-facebook"></i></a>
566 <a href="#" class="instagram"><i class="bi bi-instagram"></i></a>
567 <a href="#" class="linkedin"><i class="bi bi-linkedin"></i></a>
568 </div>
569 </div>
570
571 <div class="col-lg-2 col-6 footer-links">
572 <h4>Useful Links</h4>
573 <ul>
574 <li><i class="bi bi-chevron-right"></i> <a href="#">Home</a></li>
575 <li><i class="bi bi-chevron-right"></i> <a href="#">About us</a></li>
576 <li><i class="bi bi-chevron-right"></i> <a href="#">Services</a></li>
577
```

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576

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

577

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

578

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

579

</ul>

580

</div>

581

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

582

<h4>Our Services</h4>

583

<ul>

584

<li><i class="bi bi-chevron-right"></i> <a href="https://www.thesmartbridge.com/">Web Design</a></li>

585

<li><i class="bi bi-chevron-right"></i> <a href="https://www.thesmartbridge.com/">Web Development</a></li>

586

<li><i class="bi bi-chevron-right"></i> <a href="https://www.thesmartbridge.com/">Product Management</a></li>

587

<li><i class="bi bi-chevron-right"></i> <a href="https://www.thesmartbridge.com/">Marketing</a></li>

588

<li><i class="bi bi-chevron-right"></i> <a href="https://www.thesmartbridge.com/">Graphic Design</a></li>

589

</ul>

590

</div>

591

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

592

<h4>Contact Us</h4>

593

<p>

594

The Smartbridge <br>

595

Hyderabad<br>

596

Telangana<br>

597

<strong>Phone:</strong> +1 5589 55488 55<br>

598

<strong>Email:</strong> info@example.com<br>

599

</p>

600

</div>

601

</div>

602

</div>

603

</div>

604

</div>

605

</div>

606

</div>

607

</div>

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C:\Users\Administrator\Documents\My Tableau Repository> index.html > ...

```
606     </div>
607 </div>
608
609 <div class="container">
610   <div class="copyright">
611     &copy; Copyright <strong><span>Smartridge</span></strong>. All Rights Reserved
612   </div>
613 </div>
614 </footer><!-- End Footer -->
615
616 <a href="#" class="back-to-top d-flex align-items-center justify-content-center"><i class="bi bi-arrow-up-short"></i></a>
617
618 <!-- Vendor JS Files -->
619 <script src="assets/vendor/purecounter/purecounter_vanilla.js"></script>
620 <script src="assets/vendor/aos/aos.js"></script>
621 <script src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
622 <script src="assets/vendor/glightbox/js/glightbox.min.js"></script>
623 <script src="assets/vendor/isotope-layout/isotope.pkgd.min.js"></script>
624 <script src="assets/vendor/swiper/swiper-bundle.min.js"></script>
625 <script src="assets/vendor/php-email-form/validate.js"></script>
626
627 <!-- Template Main JS File -->
628 <script src="assets/js/main.js"></script>
629
630 </body>
631
632 </html>
```

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