./

Learning Report – Applied System Development Life Cycle and Software Testing



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# NEEDS FOR A CAR

* In this Modern world, managing our personal and professional lives can be hectic. If we do not have your own personal mode of transportation, life can become even more hectic.
* To make our life easier, we should have a reliable and personal transportation.
* The main reason why cars have become a preferred mode of transportation is that it is easier to reach the destination with it and it is more convenient but with a public transport this is not included and
* With cars we have privacy and get a personal liberty to travel to the exact place we need in less time than the former.
* When compared to public transportation, cars are much safer. They come equipped with numerous safety features including airbags, adaptive cruise control, collision detection, lane departure warnings, tire pressure, safety belts and blind-spot monitoring, and brake assist.
* Cars gives a liberty to travel to any place at any time and to take any deviation from the route we are taking.

**MARKET ANALYSIS**

* There has been a greater number of cars today than ever before and the need is continuously increasing as the World is modernizing and the standard of living of developing countries has risen since 1990, this boom in economy has encouraged people to buy more cars.
* The price of the car which averages around Rs. 10,00,000 in India is the major driver of the market.
* The need for Petrol Cars are increasing due to government regulations on diesel cars this has created a market.
* The Government duty on imported cars is very kept at higher rates, this has helped create a market for local manufacturers.
* The market demands for a more robust, highly efficient in terms of mileage and all digital packages included.

**TECHNICAL FEASIBILITY**

**PRODUCT REQUIREMENTS**

**SWOT ANALYSIS**

SWOT stands for strengths, weaknesses, opportunities, and threats we use it to determine how well can our product perform purely based on these factors.

In case of cars the SWOT analysis is especially important as it determines the range of scalability of the manufacturing and an opportunity that can be exploited

* The key strength in this case is the price which is usually the mid-range or an average which helps customer focus on it and the mileage that the product gives is a key as it is the only thing which makes the car a needful thing.
* The weakness is the one which makes the product more vulnerable in the market and is the one the customer looks out for since it is a burden on him it may be a price or the cost of maintenance etc...
* The opportunity is where the product exploits to make its presence in the market making it a high demand product, in case of tesla car or any electric car manufacturer the rise in trend for the electric car was the opportunity and the reason for that trend may be rise in environmental concerns, auto driving feature etc.…
* The threat in the market is the one that inhibits the product’s competition or its presence in the market it may be some government regulations or new tax slabs for the product or import duties or competition from the rival makers which has better market share than us.

**4 W’s and 1H**

Which is nothing but What, Where, When, Why and How

* **WHAT?**

Cars are nothing but a 4-wheel drive with 4 or more seaters which provides a customer a personal place to drive and to travel, these may be a fuel engine or electric powered this can help you cover distances within a shorter period compared to mass transport, usually used for daily commute.

* **WHEN?**

There arises a need to travel from your location to a certain destination which may be possible from various public transport but will not be feasible if we want to reach a specific location at any time, with personal space.

* **WHY?**

In an evolving world racing with time is a must, and we cannot do that with us depending on the public transport. With raising fare prices for the cabs, it is also not feasible to take an inter-city ride.

* **WHERE?**

From daily commute to an intercity ride for personal use to emergency use, cars have been de-facto standard whether it may be a passion to race or for genuine use it is the private mode of transport.

* **HOW?**

The use of the product involves a person’s input and his complete attention towards the road and his hands on the steering for navigation, speed control, braking etc.… It may also involve switching gears when different speed is required or an acceleration.

**GANTT CHART**

**UML ON DESIGN AND ARCHITECTURE**

**STRUCTURAL AND BEHAVORIAL**

**STRUCTURAL**