

HACKADROIT

PROBLEM STATEMENTS

1. WEB DEVELOPMENT

The tourism industry is linked to the idea of people traveling to other locations, either domestically or internationally, for leisure, social or business purposes. It is closely connected to the hotel industry, the hospitality industry and the transport industry, and much of it is based around keeping tourists happy, occupied and equipped with the things they need during their time away from home.

However, multiple problems are faced by the tourists when they travel to a new city/country. These include:

- Insufficient information about the tourist spots, local shops and restaurants, hotels, etc.
- Finding local tourist guides
- Finding local modes of transportation for traveling from one part of the city to another (e.g. car or bike rentals) restricting their mobility to a great extent
- Awareness about the local events and recreational activities
- Nearby ATM machines or currency exchange outlets

Using the above problems as a reference, develop a web application to provide an integrated platform to the travelers with complete information about the city/country/tourist spot to be visited, thereby providing a wholesome experience of traveling.

NOTE: In the presentation, specify all the problems that have been catered to in your web application. The above list is just an example. Your web application can include any feature as per your discretion.

2. AR/VR

Emerging Technologies such as **Augmented Reality (AR)** and **Virtual Reality (VR)** are now replacing real life environments with virtual simulations of the same. These technologies are witnessing their presence in almost every sector of the economy and commercial space today. Similarly, in the travel industry, use of AR/VR can help the tourists in taking virtual tours of the places they cannot visit or want to visit later.

- For example, The Red Fort or Lal Qila is a historic fort in Old Delhi, India that served as the main residence of the Mughal Emperors. Although visiting the site can give a feel of the fort, people can't feel the depth of history of Mughals and Delhi. This can be achieved by incorporating AR/VR in the tourism industry. Through these, one can showcase the various tourist/pilgrimage spots in any city, its history over the years, the stories, the old pictures and changes that have come. This information will be augmented on top of the real world. Subsequent work can be expanded to other tourist places.
- Another example could include the use of online maps. Though online maps have made their own level in today's world, a 2D map can be confusing many times. Integration of AR/VR technology with these maps will make things a lot different. AR/VR implemented maps of a tourist spot or historical site can make it a lot easier for the visitors to get acquainted with the place.

Taking reference from the above examples, build an AR/VR based application that can help enhance the travel experience virtually.

3. BLOCKCHAIN

Blockchain technology is poised to revolutionize the way we travel. The use of blockchain in tourism is going to provide a new experience altogether in the way we book travel tickets and hotel rooms, providing a seamless user experience.

Tourism and blockchain have the potential to become a powerful combination as the technology can bring safety and transparency to several critical touchpoints. In the case of a travel agency booking flights and hotels for a customer, it has to send the information to the different firms. Blockchain could make this operation more secure and transparent since the responsibility spreads throughout the whole network. The same will happen with foreign transactions, increasing the level of trust among all involved parties.

Another problem that can be solved would be that we no longer need to exchange currency when we travel to another country and simultaneously be subject to the trustworthiness or volatility of these foreign exchange operations. That's why making payments using the blockchain can make a relevant difference when it comes to overseas transactions.

Some of the other areas where blockchain can be implemented include:

- Decentralized payment system
- Customer identification
- Baggage management
- Customer rewards system
- Transparent business ratings

Your focus should be to identify any tourism related problem faced by the people and use blockchain to devise a solution for the same.

NOTE: The teams working on Blockchain must use Tezos platform for the development (in any way or any part) else the project won't be considered.

4. DATA SCIENCE

In the era of digital transformation, Big Data has assumed a crucial role in changing global travel and providing significant challenges and opportunities for established companies, as well as new entrants into the tourism industry.

All the tourism related companies can get valuable information on Big Data for predicting tourist demand, enabling better decision-making, managing knowledge flows and interaction with customers, and providing the best service in a more efficient and effective way.

Analyze any one of the following problem statements either from the consumer or service provider's perspective:

- Predictive analysis or specific recommendations for Air travel Ticketing (Consumer)
- Top destination location to visit depending upon customer's location (Consumer)
- Hotel Analysis to get maximum repeat customers according to specific time duration (Service Provider)
- Chatbots: An excellent strategy to get in touch with customers and develop improved customer relationships with analysis using data science in travel industry (Service Provider)

You are allowed to use any Data analytics, Data visualization, Cloud platforms, prediction tools for your project.

NOTE: You are free to use existing dataset, tweak them or make your own datasets as per your requirements.