



Google Street View

WELCOME TO PENANG VR PROPOSAL

Toward **Fourth Industrial Revolution** with
Infrastructure Content Creation, Dynamic Information Overlay System and Mobile Application
A platform for:
VR-Penang Journey Planner, e-Penang Guide and Tourism Technologies

Jan 2021
Revision 1.2

PEGMAN

Hi! I am Pegman, Google's Mascot for Google Street View. I Will guide you through our presentation to enable Beautiful Penang island with an Immersive Virtual Reality Solution



More than 1 billion monthly active users of Google Maps services
When initially searching for places, consumers use mapping products

44% of the time

On average 41% of these searches result in an on-site visit
By effective exposure of tourist attractions on these Products:

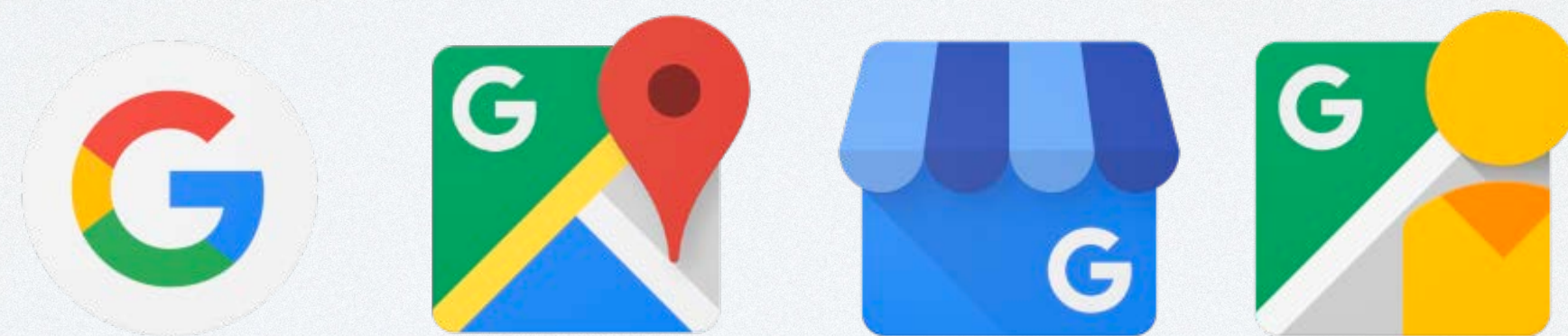


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- Locations Breakdown and Details
- Proposal, Project Costs and Gantt chart

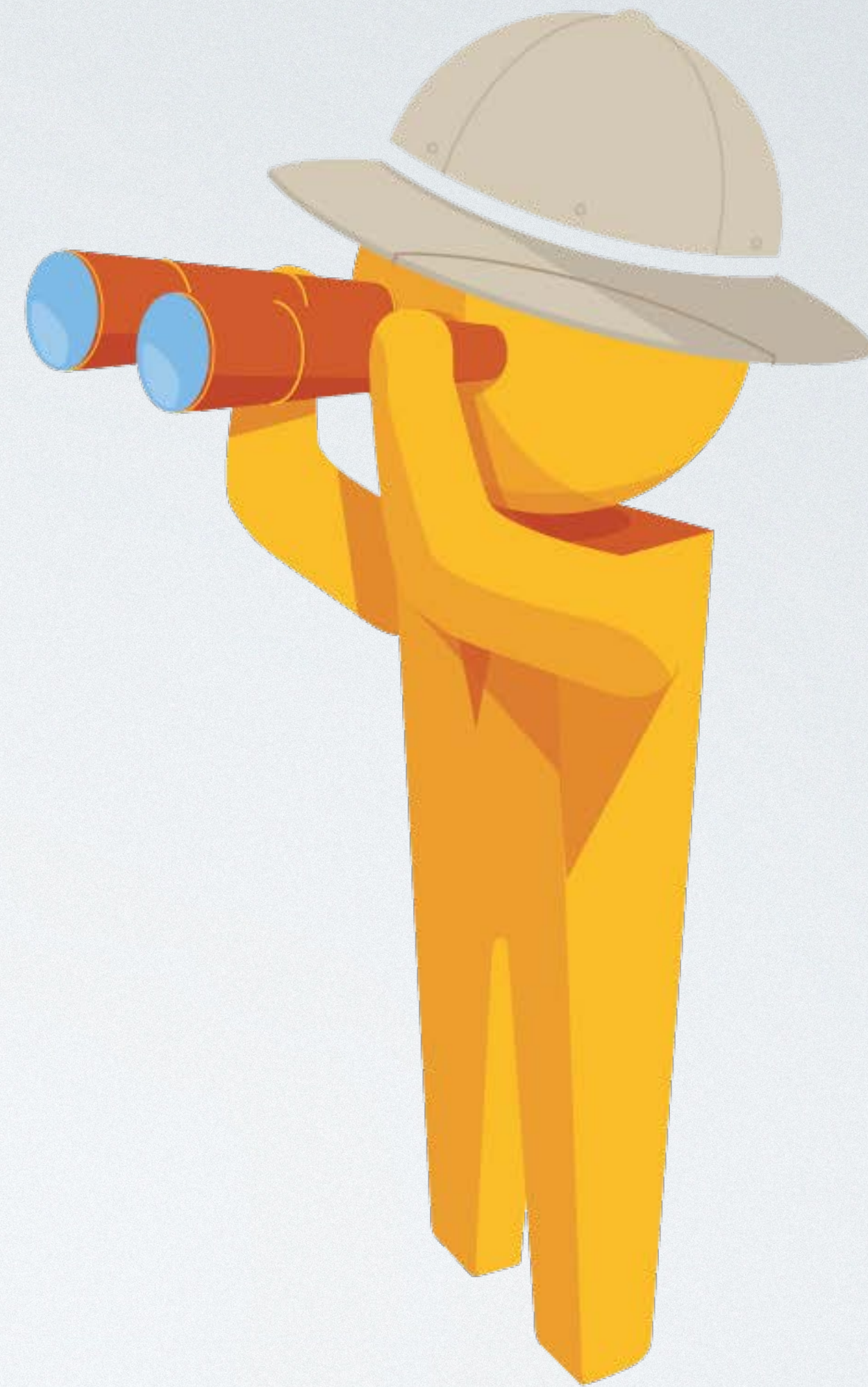




CHILDREN ON A BICYCLE
1980s
Singapore

PURPOSE

The project purpose is to complete Google Platform in Penang Island with fresh and accurate information about the local Points of interest and businesses, and to improve their online presence with immersive Street View imagery. We will support Destination Marketing by adding the best and the most relevant locations to Google Maps and completing the island information on Google Platform.

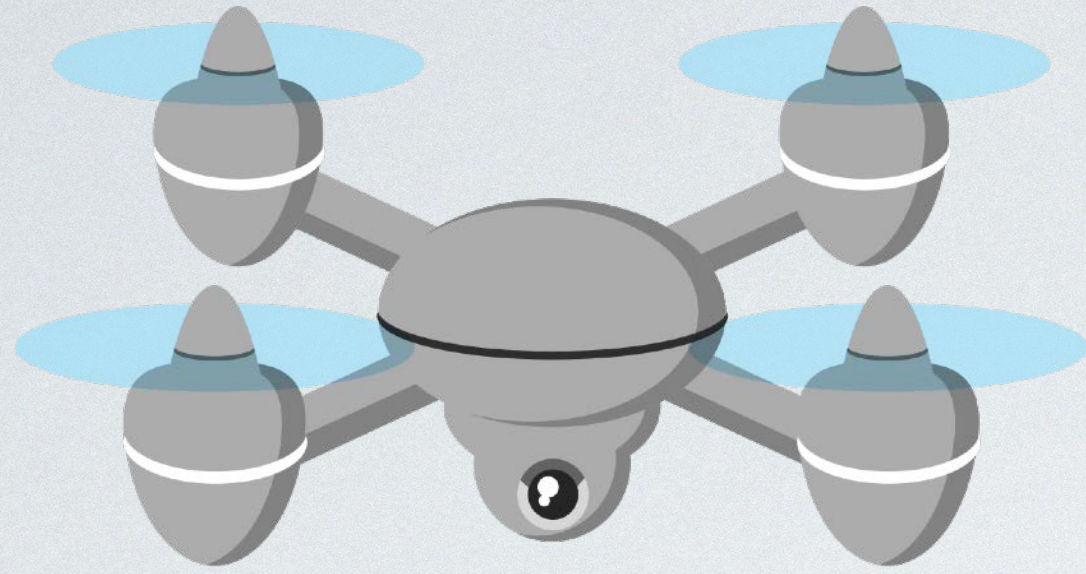


Today, it's possible to “**teleport**” ourselves to the most remote corners of the globe without getting off the couch.

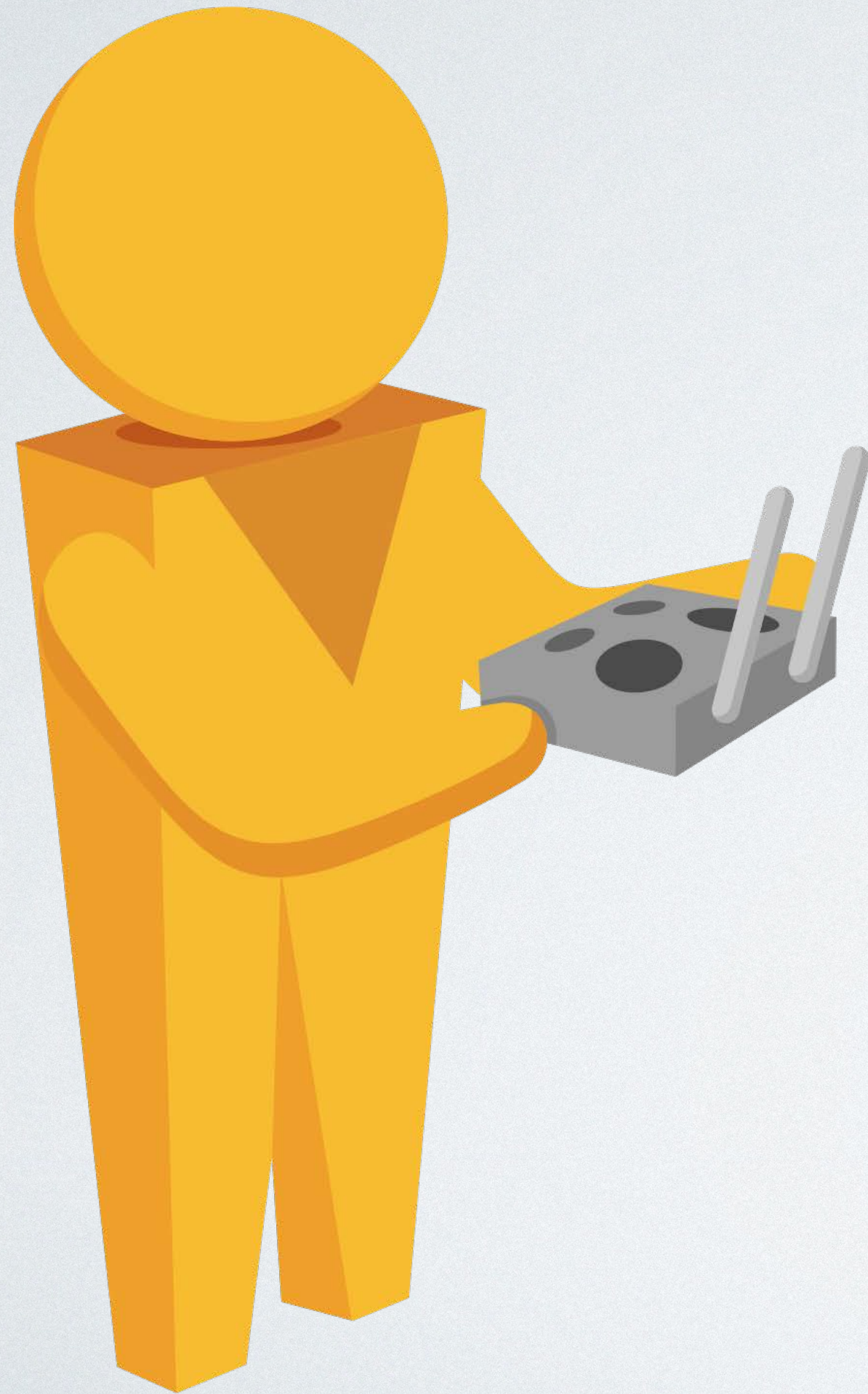
GOOGLE STREET VIEW IN PENANG

- Google Street View coverage of Roads in Penang Island is completed and being updated on a regular basis, however following extensions that are very beneficial for ***Tourist Attractions*** and ***Location Data Management*** are not being Implemented:
 - *Street View Hawkeye*
 - *Street View See Inside*



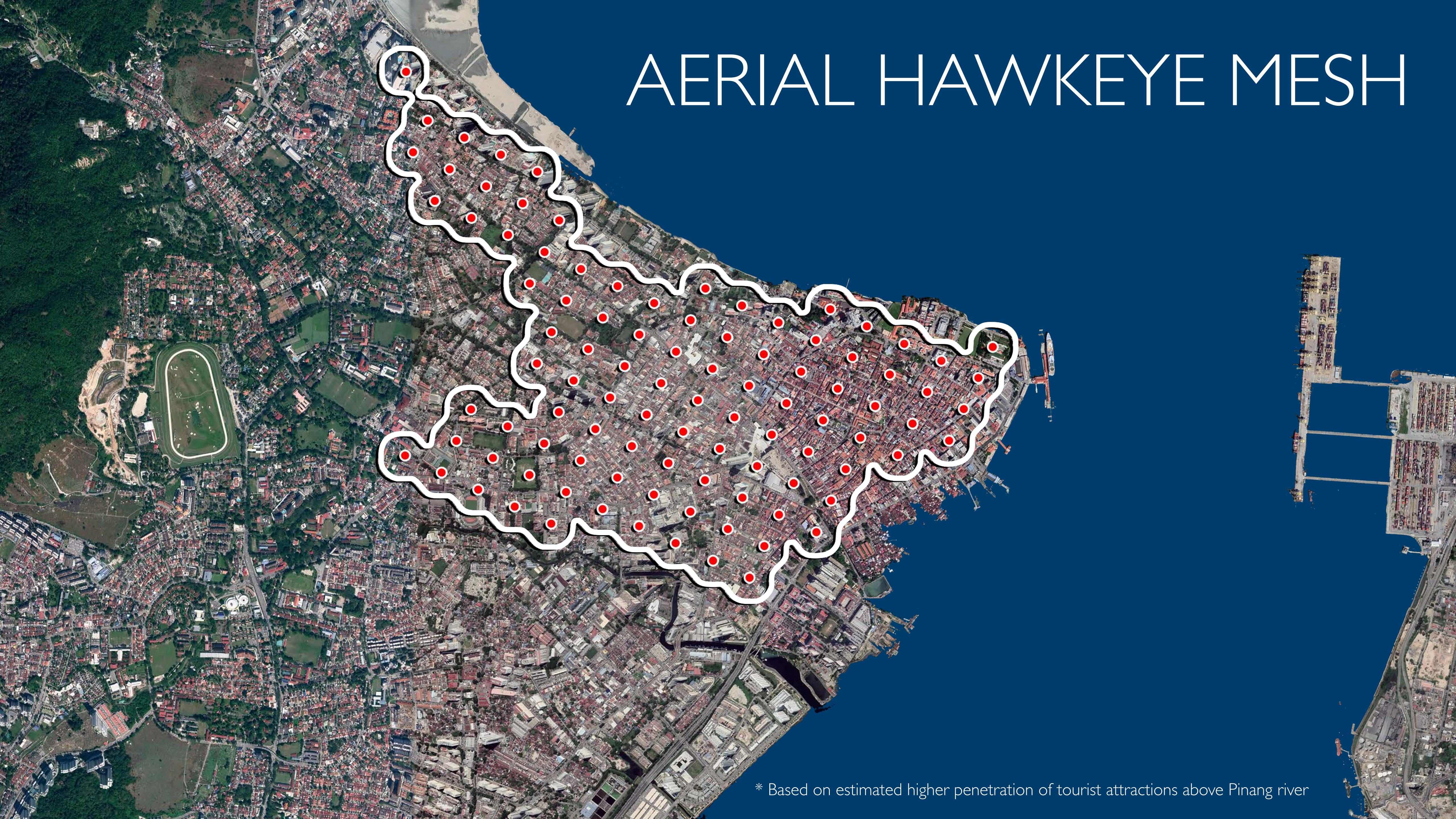


GOOGLE STREET VIEW HAWKEYE

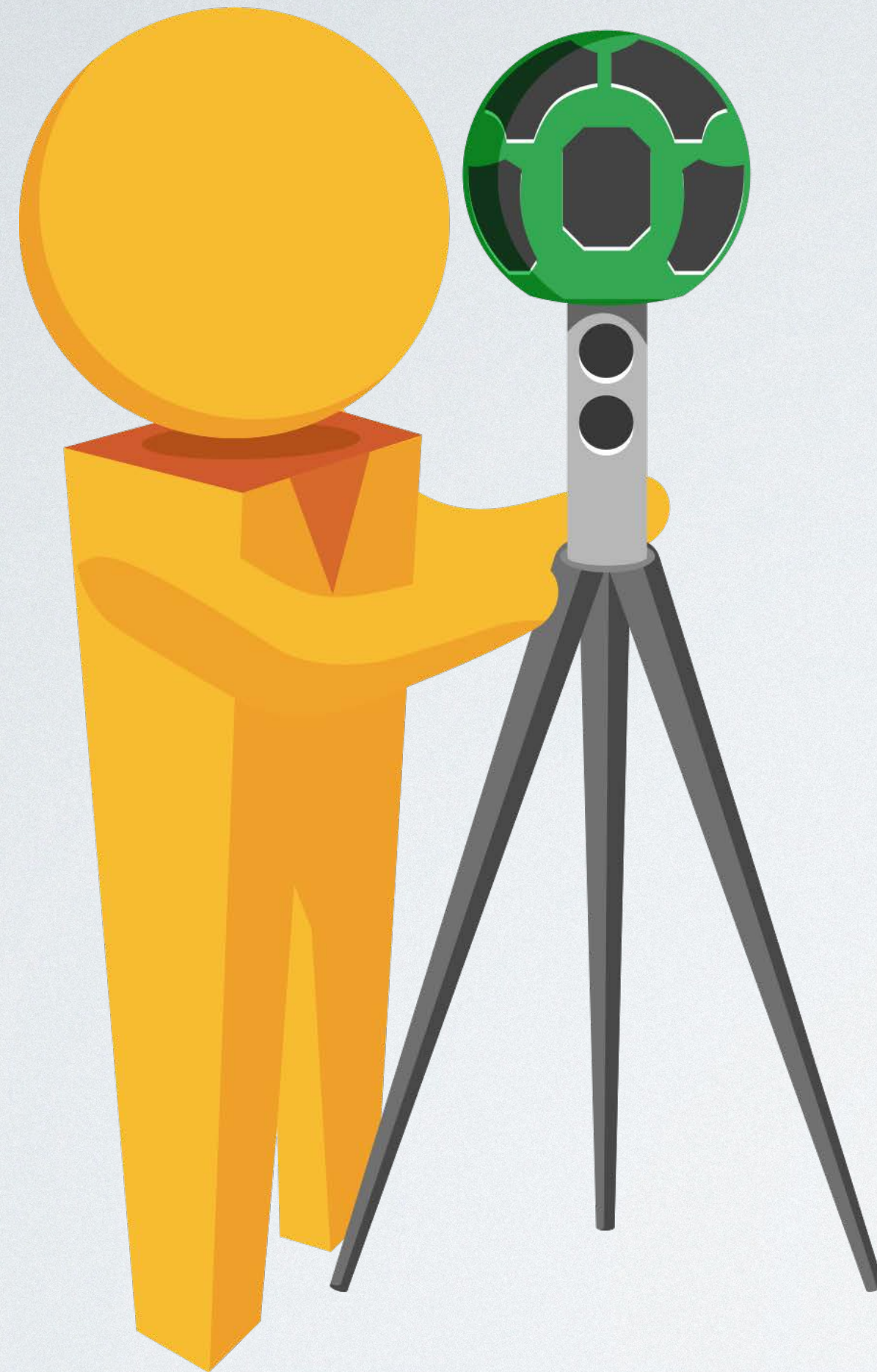


- Provides a very impressive overview of Penang.
- Makes it possible to Virtually fly over Penang and See Attractions from The Sky then Click and Go Inside.
- Can be used for Planning and Implementation of Various management and planning projects.
- More effective than any Map for understanding relations and directions between locations.

AERIAL HAWKEYE MESH



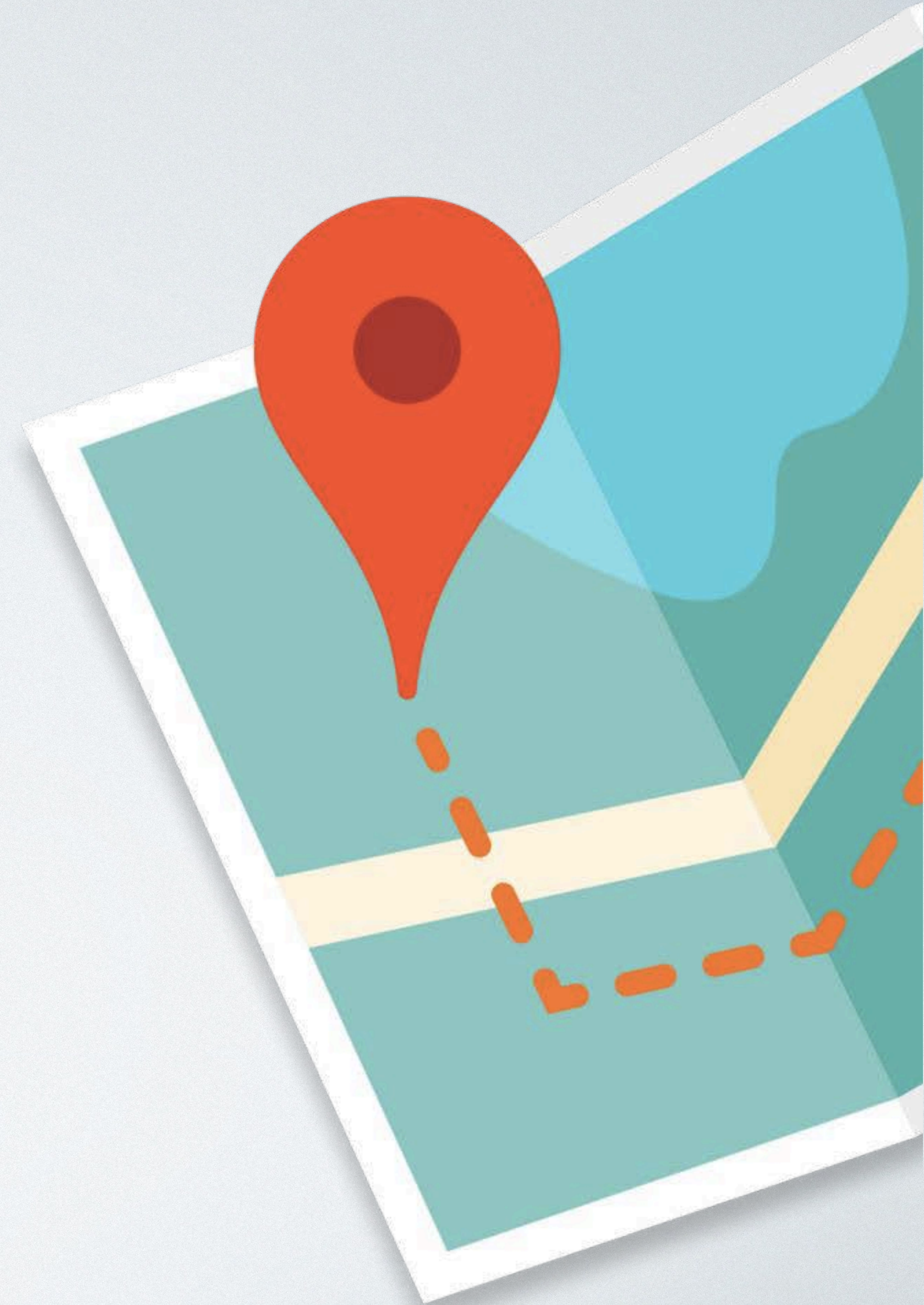
* Based on estimated higher penetration of tourist attractions above Pinang river



GOOGLE STREET VIEW SEE INSIDE

- Enables Tourists to view and explore the interior of attraction in VR before arrival by searching for their desired location on Google.
- Highly Increases exposure of location on Google Maps and Google Search for improved SEO Ranking.
- Back Panel provides Insights of Location on Google platform which is used for Planning and Supervision.

- Goes beyond glossy brochureware
- Gives travellers a sense of place and culture
- Paints a picture of specific aspects that appeal to tourists, such as regional cuisine& shopping

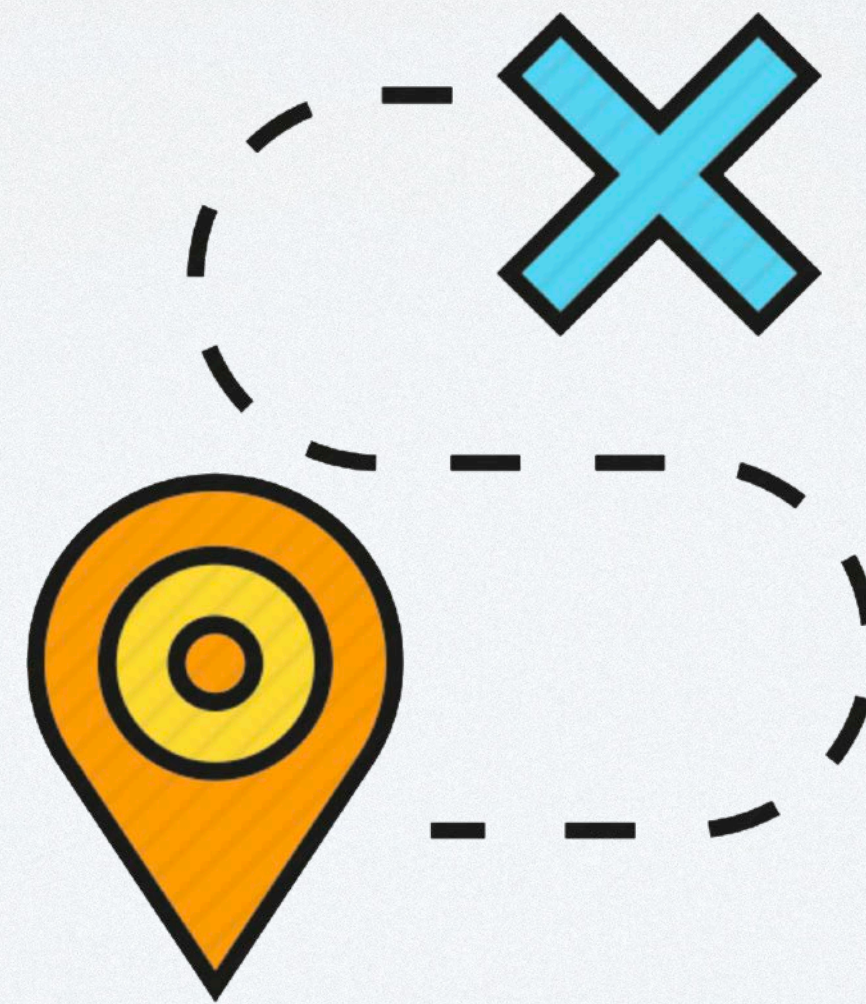


TYPICAL LOCATION ISSUES ON GOOGLE MAPS AND WAZE

A. Location does not exist on Google Maps and Waze platforms



B. Location information is inaccurate and directs tourists to a wrong place

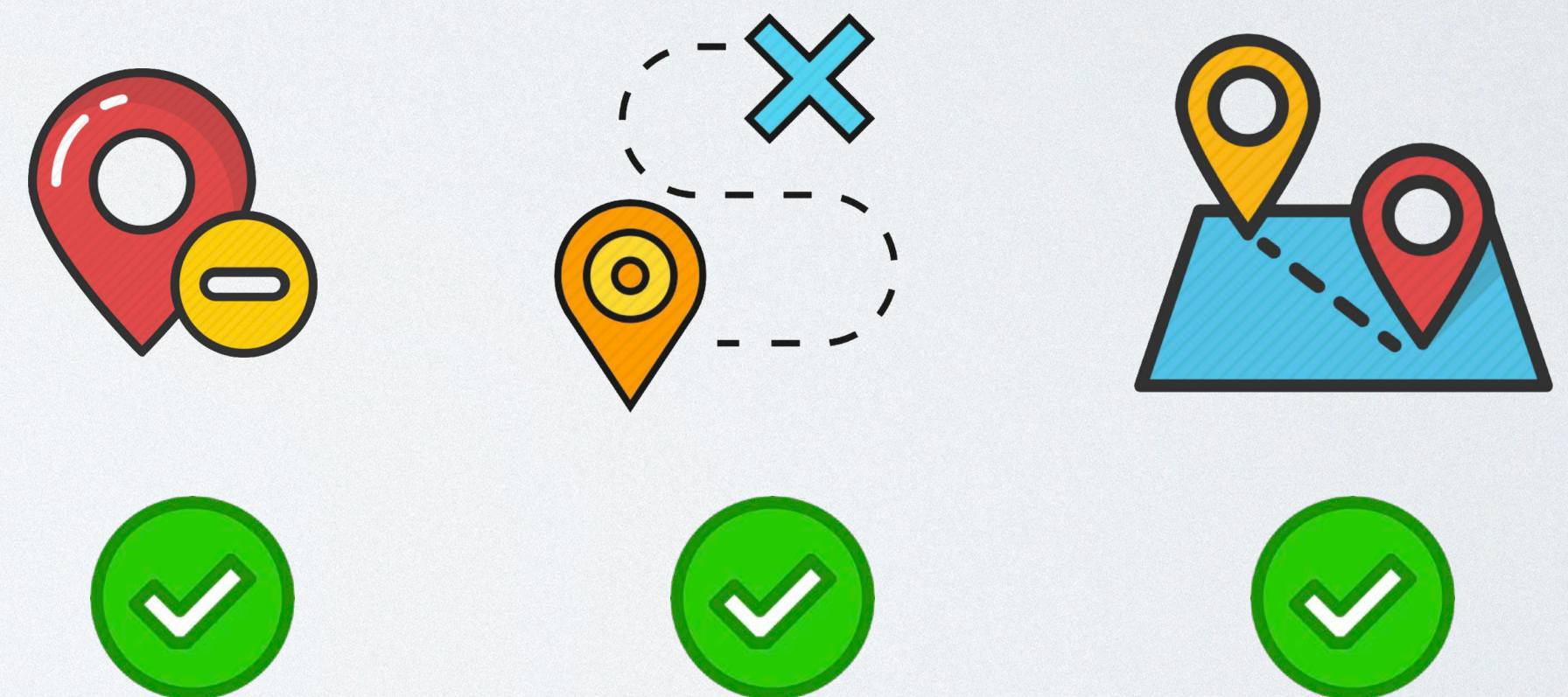
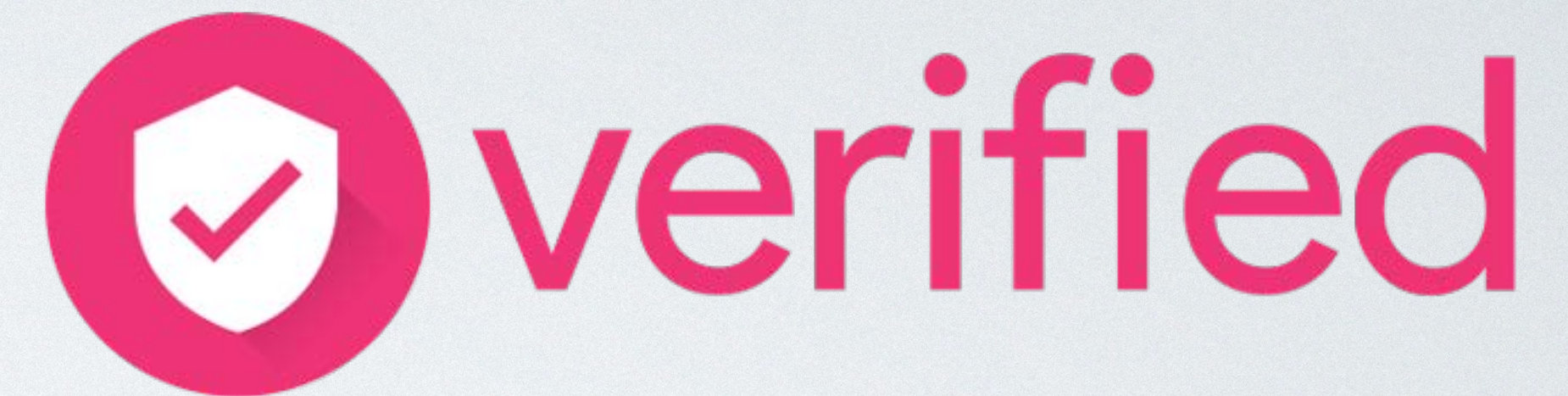


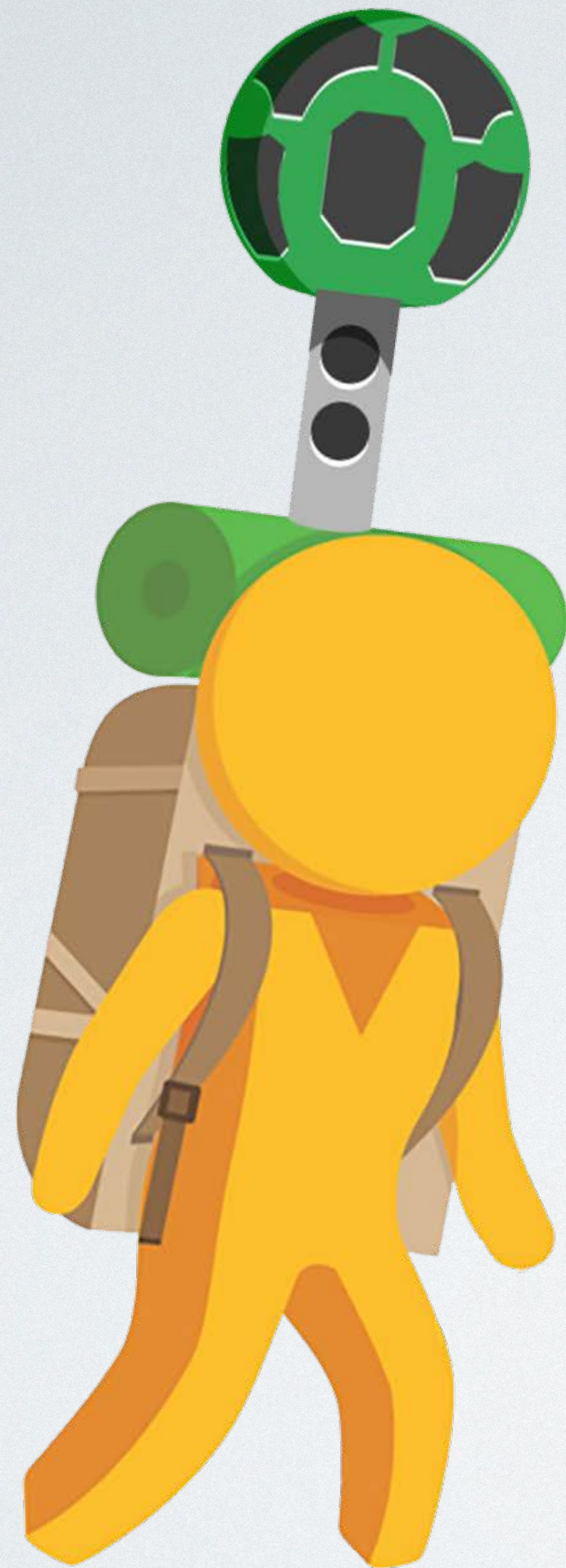
C. Location have duplicates that causes confusion for tourists



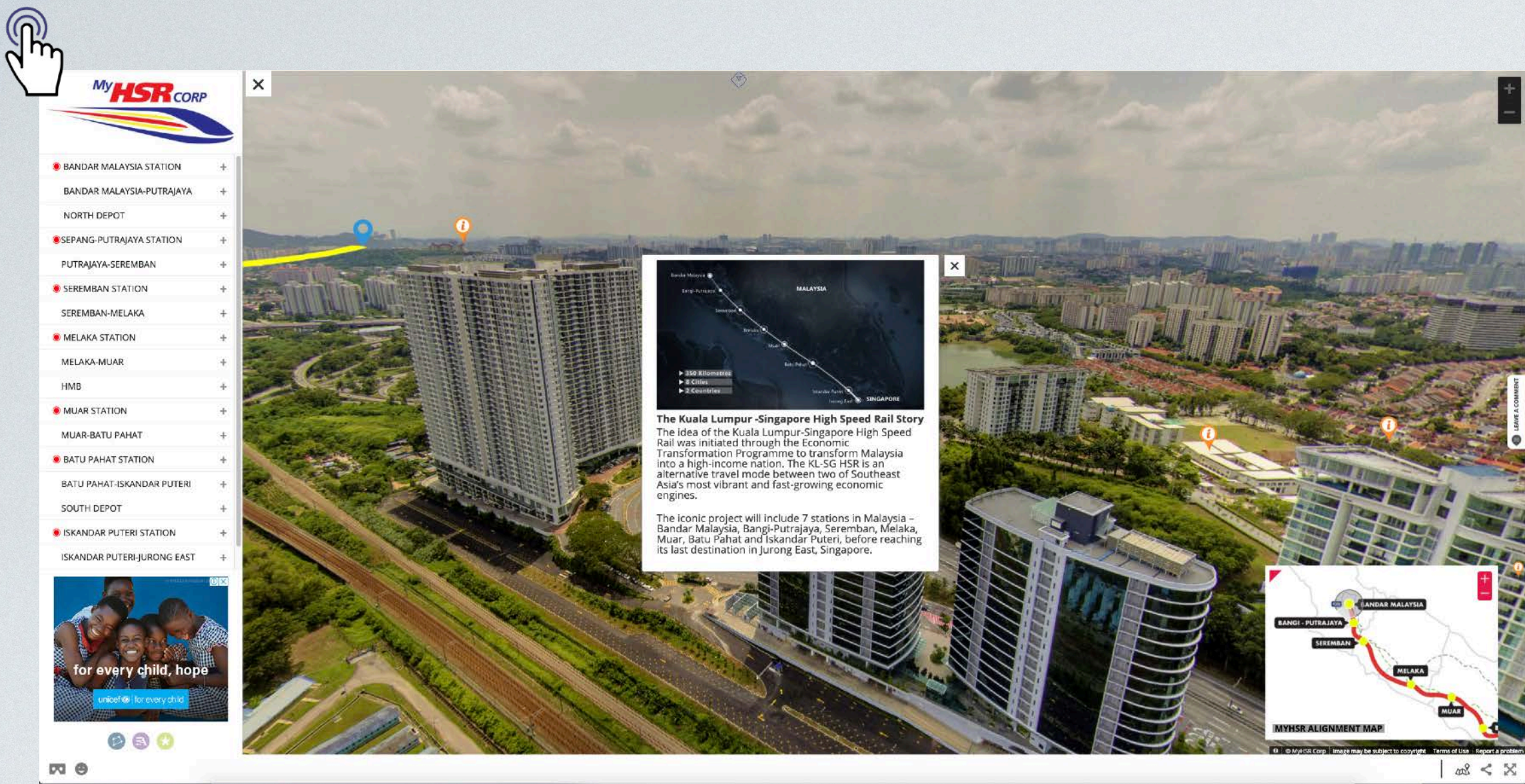
SOLUTION

- ***Location Verification:*** Fixing information on Google Maps to avoid public (Contributors) change the information.
- ***Location Rectification:***
 1. Adding Location (If it does not exist)
 2. Modifying inaccurate information
 3. Removal of Duplicates (If any)





“the travel industry is in the midst of a deep **transformation**” where “*the Internet and mobile have changed the way people plan and experience their trips which had a **big impact on the way destinations promote themselves.***”



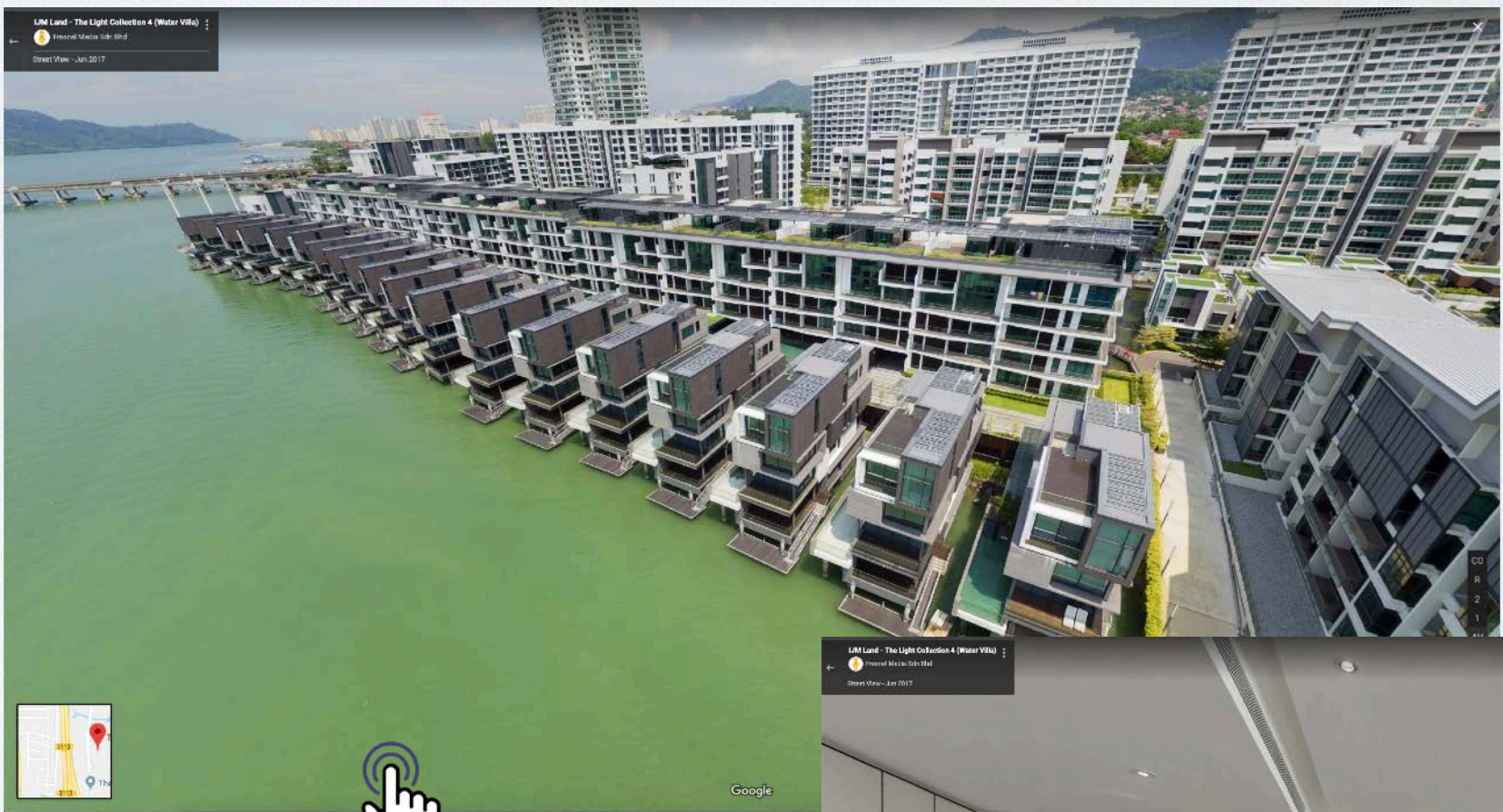
* High Speed Rail - Enhanced with Dynamic Information Overlay



* MK Land Rafflesia - Integrated and Enhanced with Dynamic Information Overlay

Dynamic Information Overlay System

- Integrates *See Inside* and *Hawkeye* in One Platform.
- Enables *PGT* to *Overlay*(Add) Information on top of Google Street View Content.
- Provides *Backend Analytics* and *Insights* for all locations.
- QR Code generation is integrated
- Embeddable in any Website

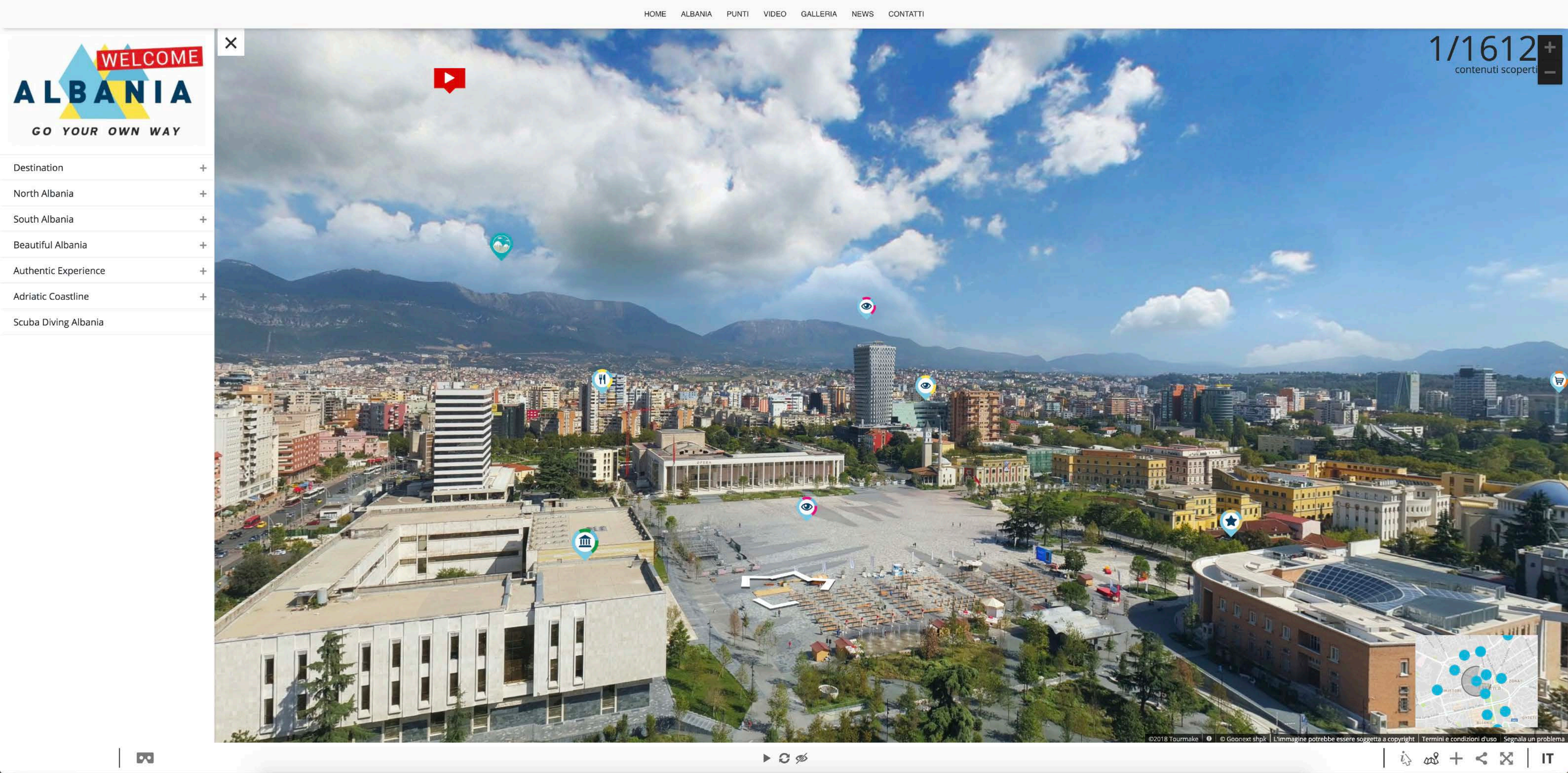


* The Light Collection Penang Hawkeye

The Light Collection Penang
See Inside *



Previous Projects, Albania Tourism

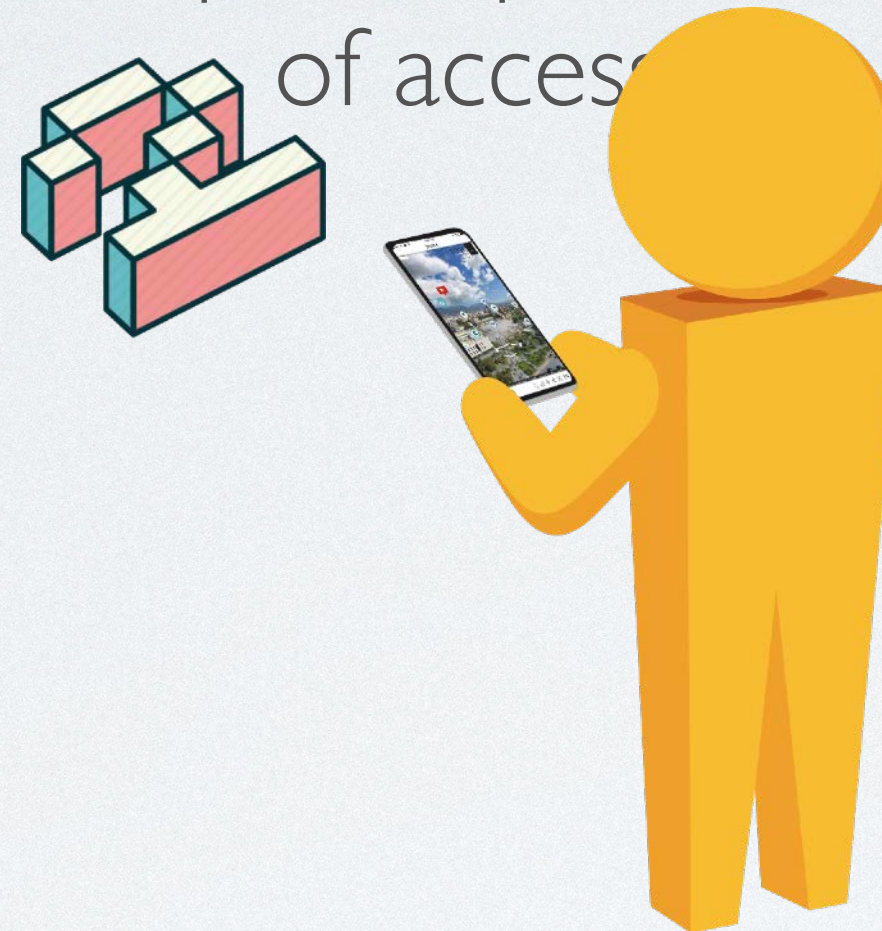


Sample link of Tourism Albania covered all Attractions in one portal. Photo is Clickable*

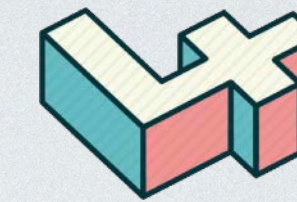
ACCESS METHODS



Mobile App (Optional) have all features of portal plus convenience of access



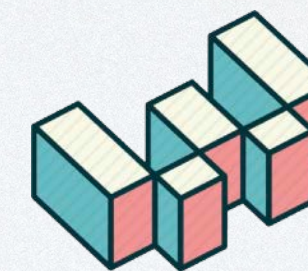
Kiosk (Optional) can be installed in Tourist entrance places for a fast and reliable access



Accessible by scanning **QR Code** from any Phone or Tablet without the need of Software installation

* Google platform and all contents are fully compatible with all operation systems and softwares which guaranties higher access rates and more convenience

Web access is available from all computers with different operation systems, just a browser and internet connection is required



CHANGE IN APPROACH

Travellers don't want to take guides anymore, or so seems to be the trend. More and more travellers believe in 'authentic' experiences rather than the **fixed itinerary** of the old. Immersing into the local culture while seeing everything there is to see is the top priority now. You see, if you already haven't visited a place once, there is no way of knowing 'authentic' experiences. **Technology builds the bridge here.** Social media and travel blogging websites are the number one source for researching the places you are about to travel to. The percentage of travellers aged 18-50, getting a go, in general, is upwards of 60%. These are the main catch of the sea, the ones who are able, fund trips or even tour on their own. They make the bulk of the market. Given the technology is right with the age group at the discussion, it's easy for one to conclude there is no way bypassing tech in travel.

“An adult has to use his **mobile phone** for at least one booking on the trip”. Unless one is completely spontaneous or a hippie, the internet is your friend while on the road.

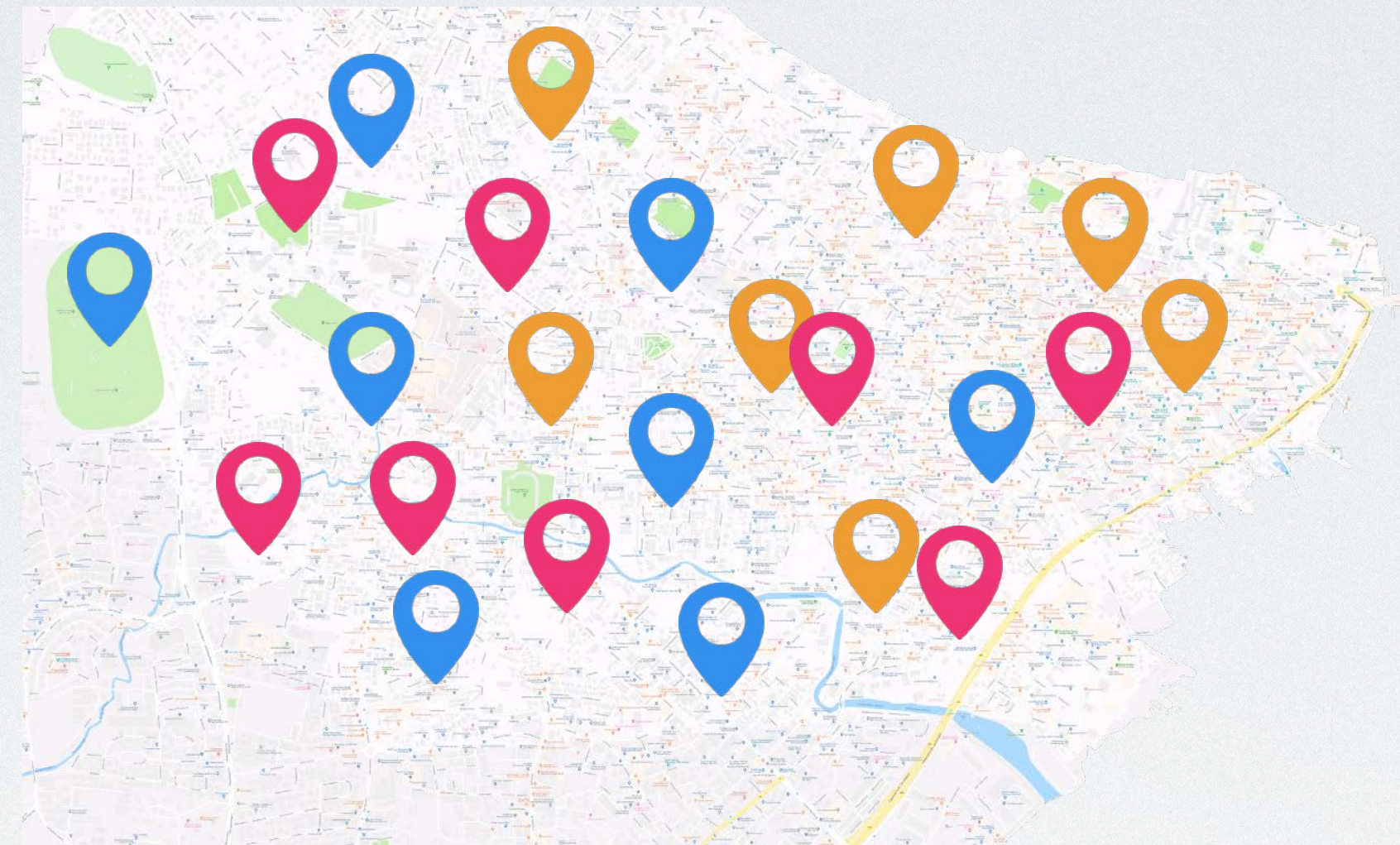
BENEFICIARIES

Penang Global Tourism



- Unlimited future systems can benefit and be integrated with the system for future implementations
- Providing attractive and immersive material will bring more tourists to Island
- Management system of the panel will provide key information for future planning
- Easy to use Dynamic Information Overlay System will be handy tool to keep the system updated by PGT

Attractions and Businesses



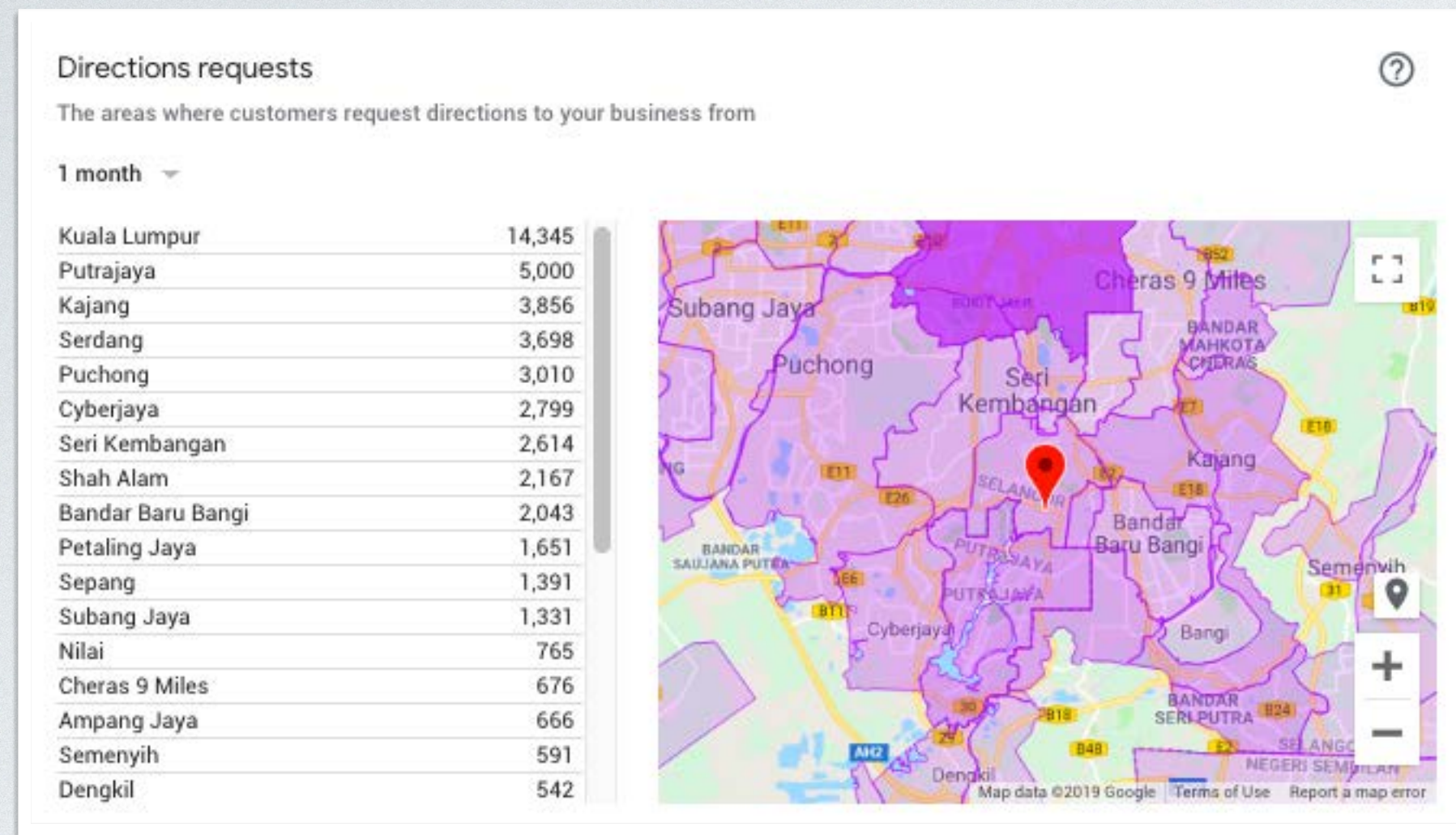
- Higher SEO ranking and more chances to be found by Tourists
- Integration of customised services like table booking is Possible with Google Street View
- Trust Building with potential customers
- Increased traffic in website and views

Tourists



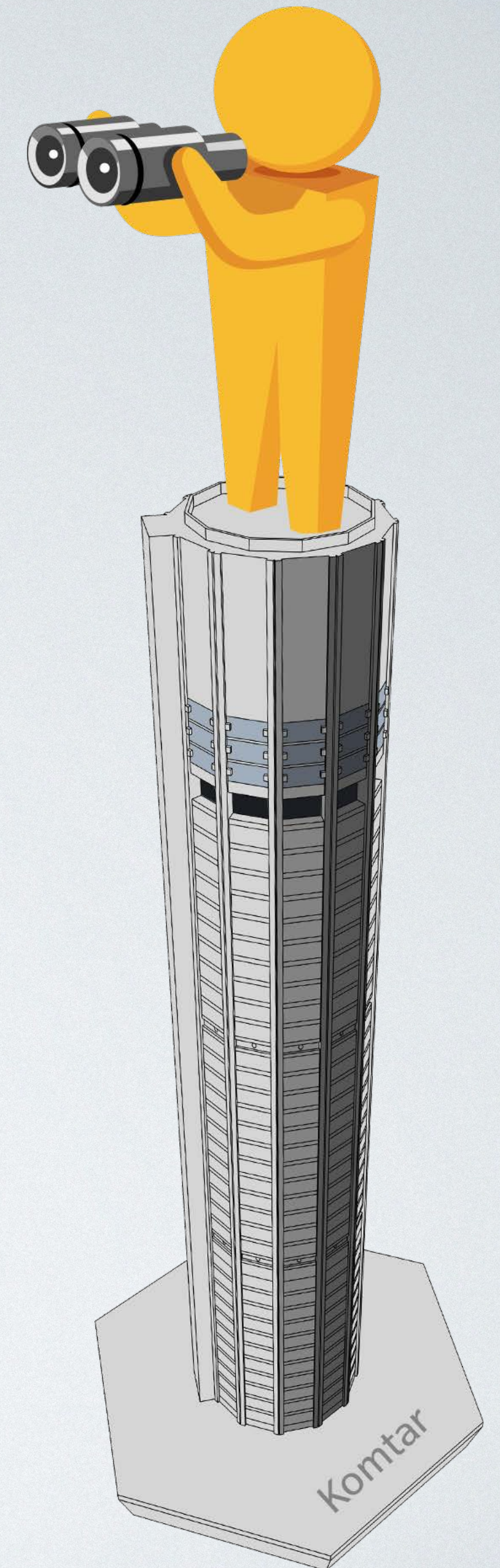
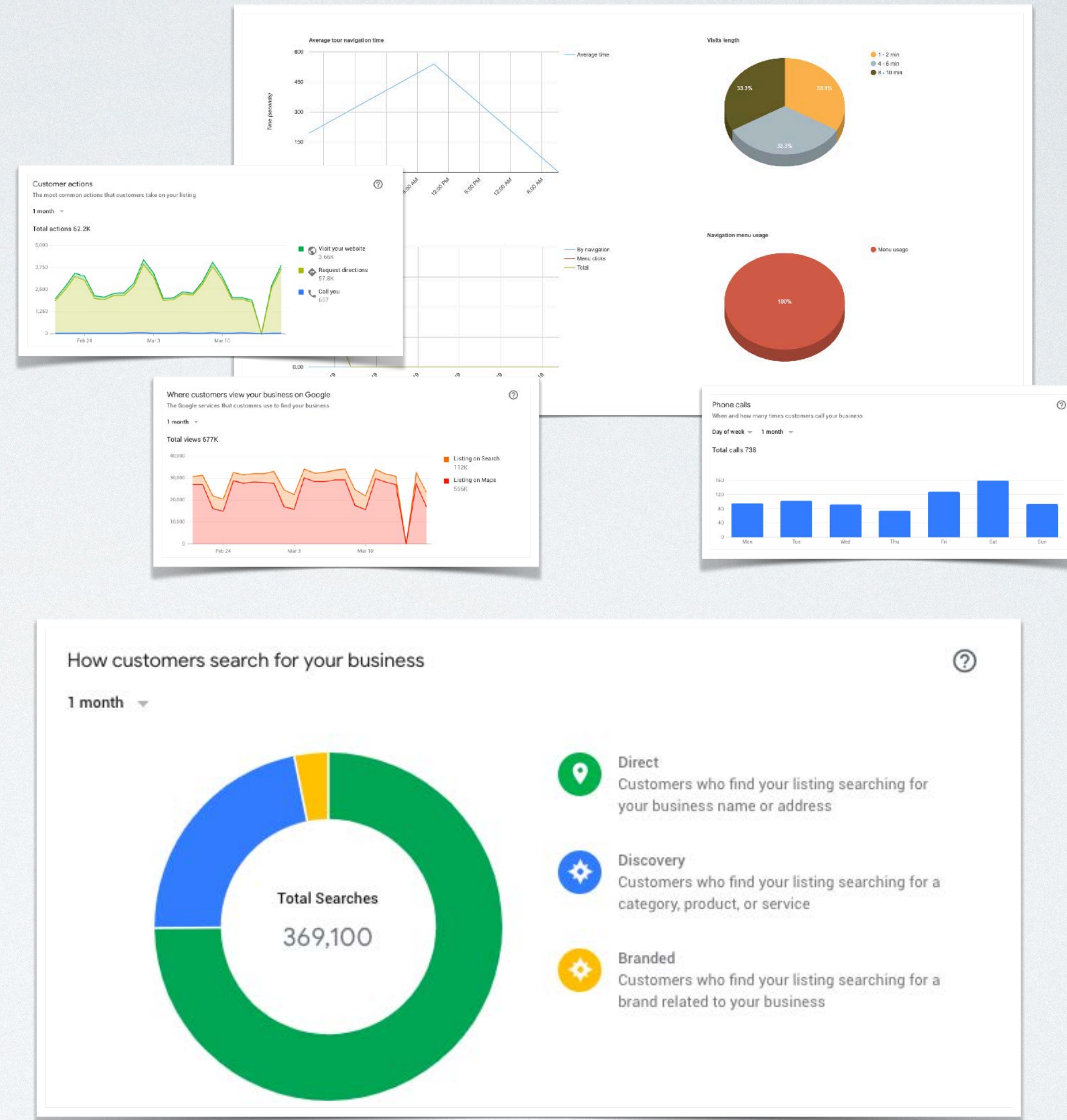
- With access to accurate and reliable information trip planning is easier and more effective
- Comparison of attraction based on personal preferences becomes possible
- Journey Planning is Simple
- Saves Time and Money

INSIGHTS AND ANALYTICS

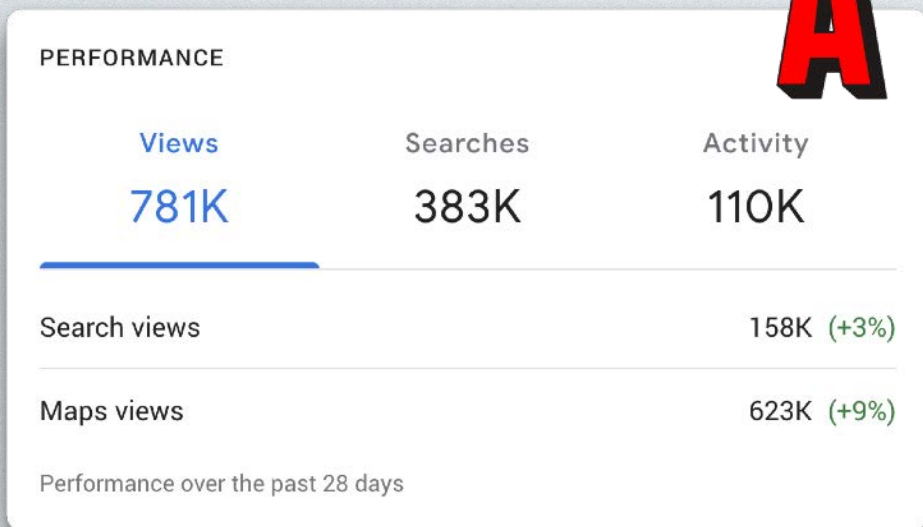


Location Based back panel is different than Google Analytics and is available in two categories:

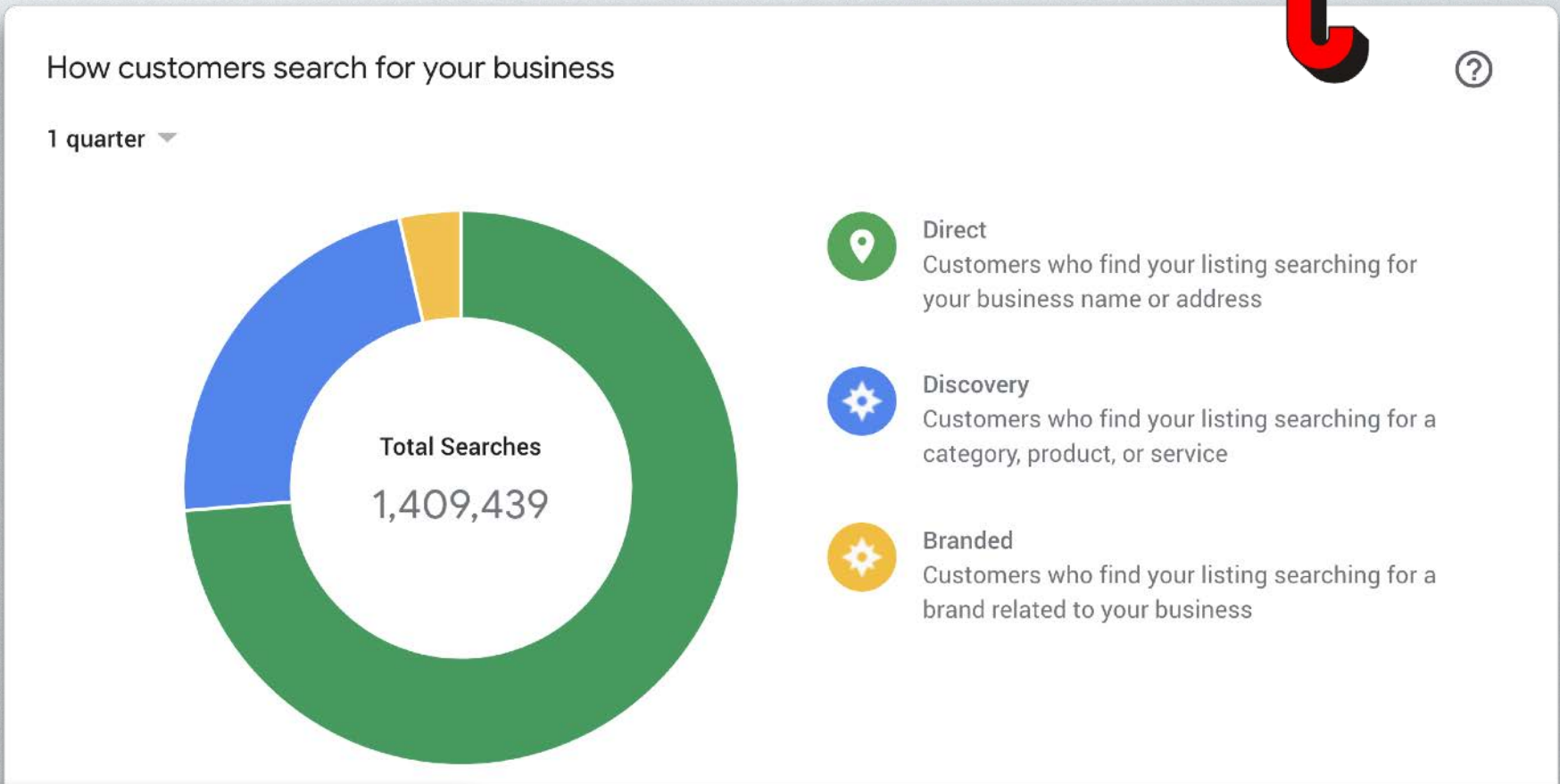
1. Insights and Analytics per location (Available for Unverified Locations)
2. Analytics for usage of Main System
3. CRM



I A. INSIGHTS AND ANALYTICS FOR INDIVIDUAL LOCATIONS



- A. Performance on Google Search and Maps
- B. Keywords Used to Find Location
- C. Direct/Discovered Results Comparison
- D. Maps/Search Results Comparison
- E. Customer Search Lead



B

Queries used to find your business • [Send feedback](#)

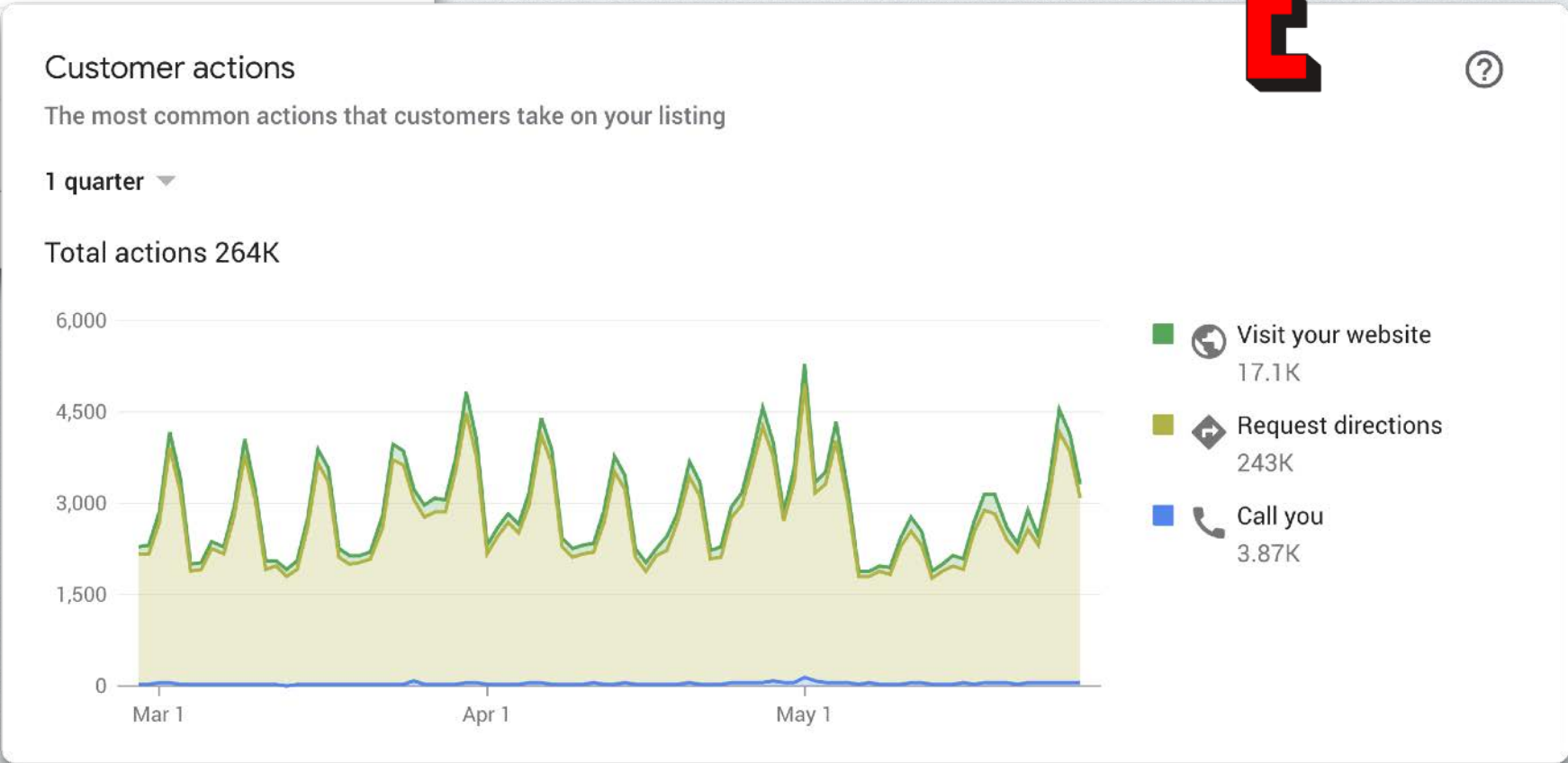
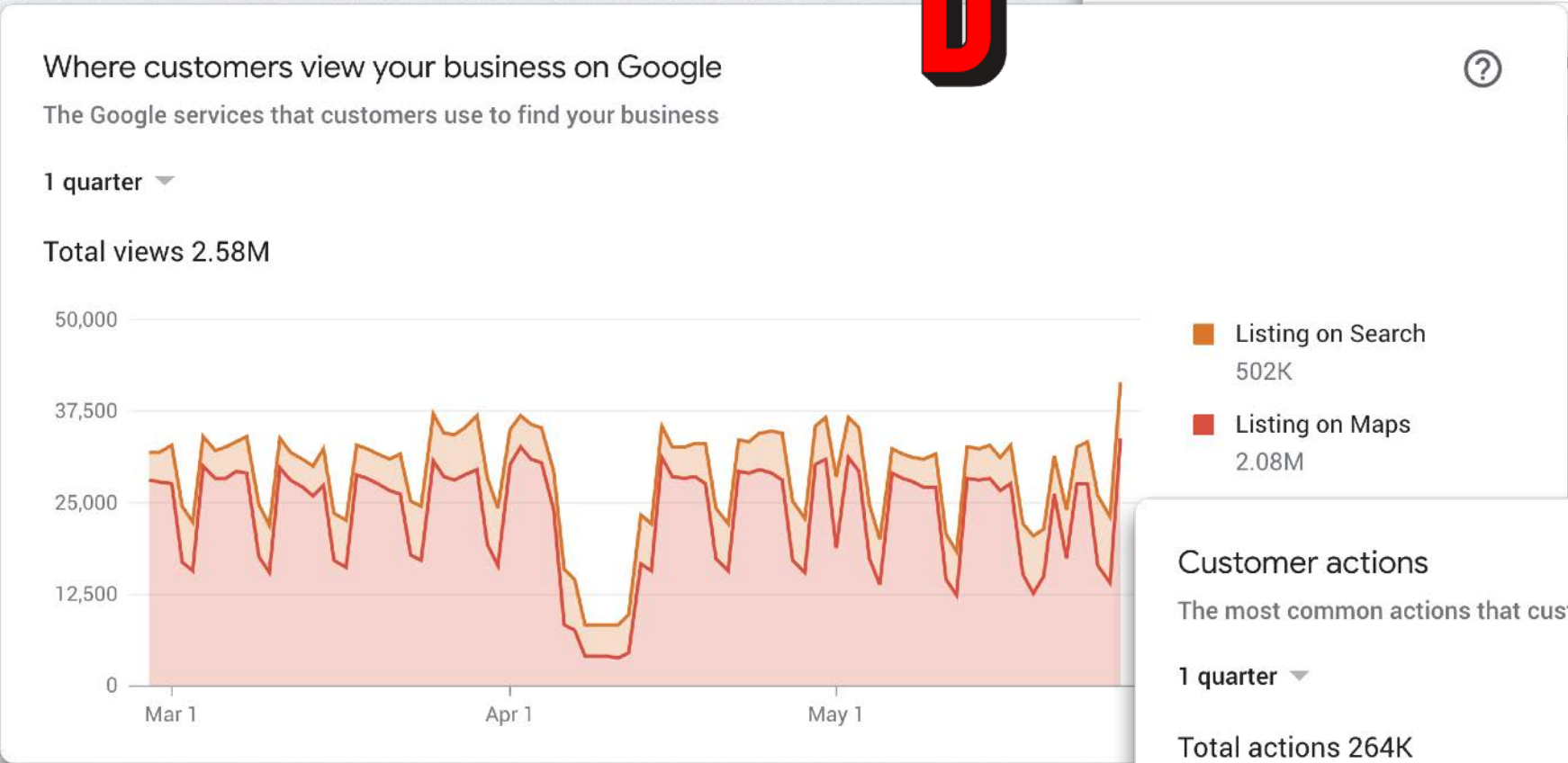
The most popular queries for your business by unique users

1 quarter ▾

Query	Users
1 ioi city mall	131,820
2 ioi city mall, ioi resort, putrajaya	30,860
3 ioi putrajaya	25,698
4 ioi city mall, ioi resort city, ioi resort, putrajaya	23,995
5 ioi mall	15,744
6 ioi mall putrajaya	13,495
7 ioi	11,794
8 ioi city mall, lebuhraya, ioi resort, putrajaya, selangor	11,417
9 ioi city mall putrajaya	10,895
10 ioi city mall, lebuhraya, ioi resort, putrajaya	9,621

1-10 of 1,000 < >

Help customers find your business. [Create a post](#)



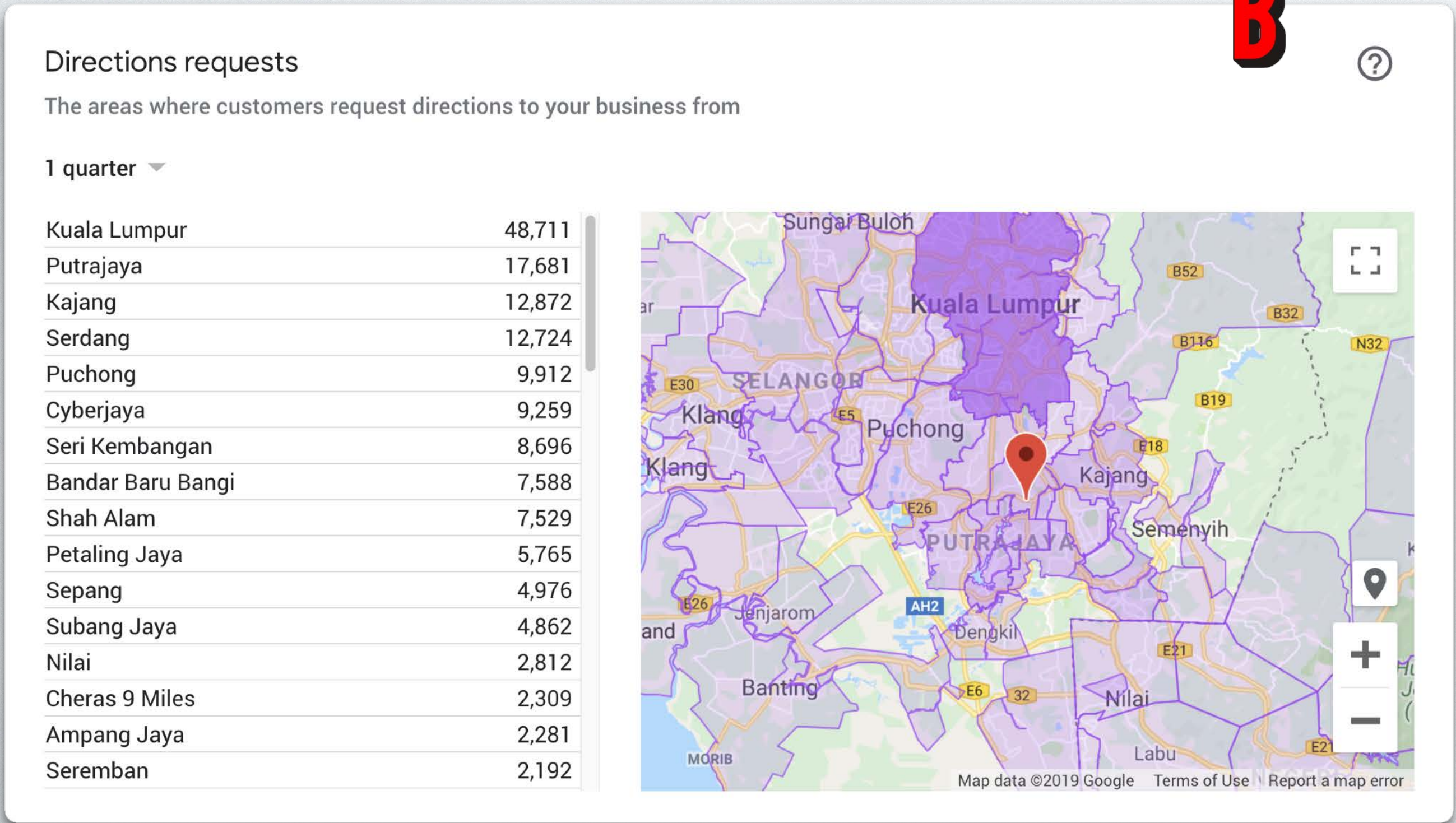
I B. INSIGHTS AND ANALYTICS FOR INDIVIDUAL LOCATIONS

A

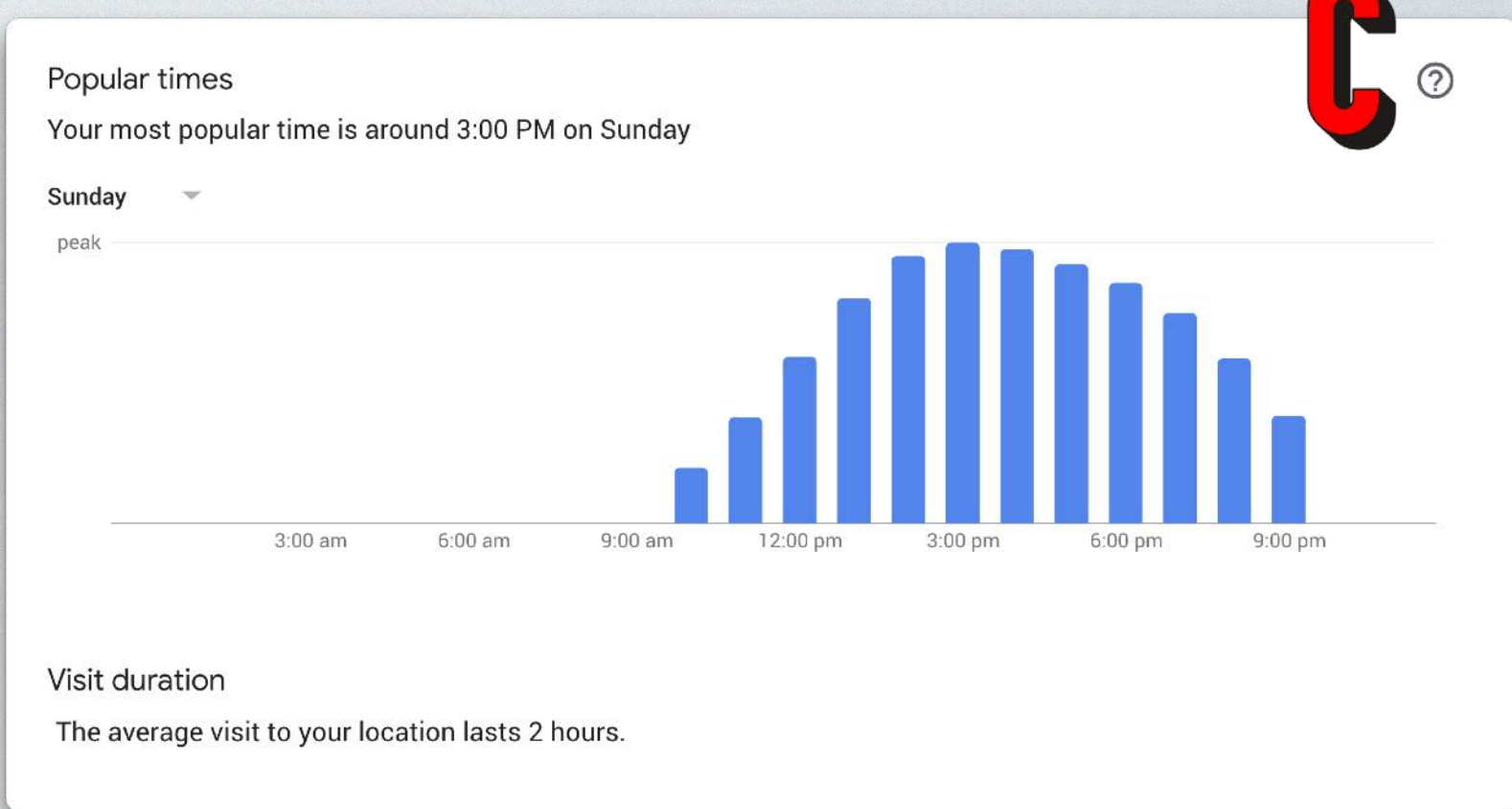


- A. Phone Calls to Location
- B. Direction Requests
- C. Popular Times
- D. Photo Views Comparison
- E. Customer/Location Photo Quantity Ratio

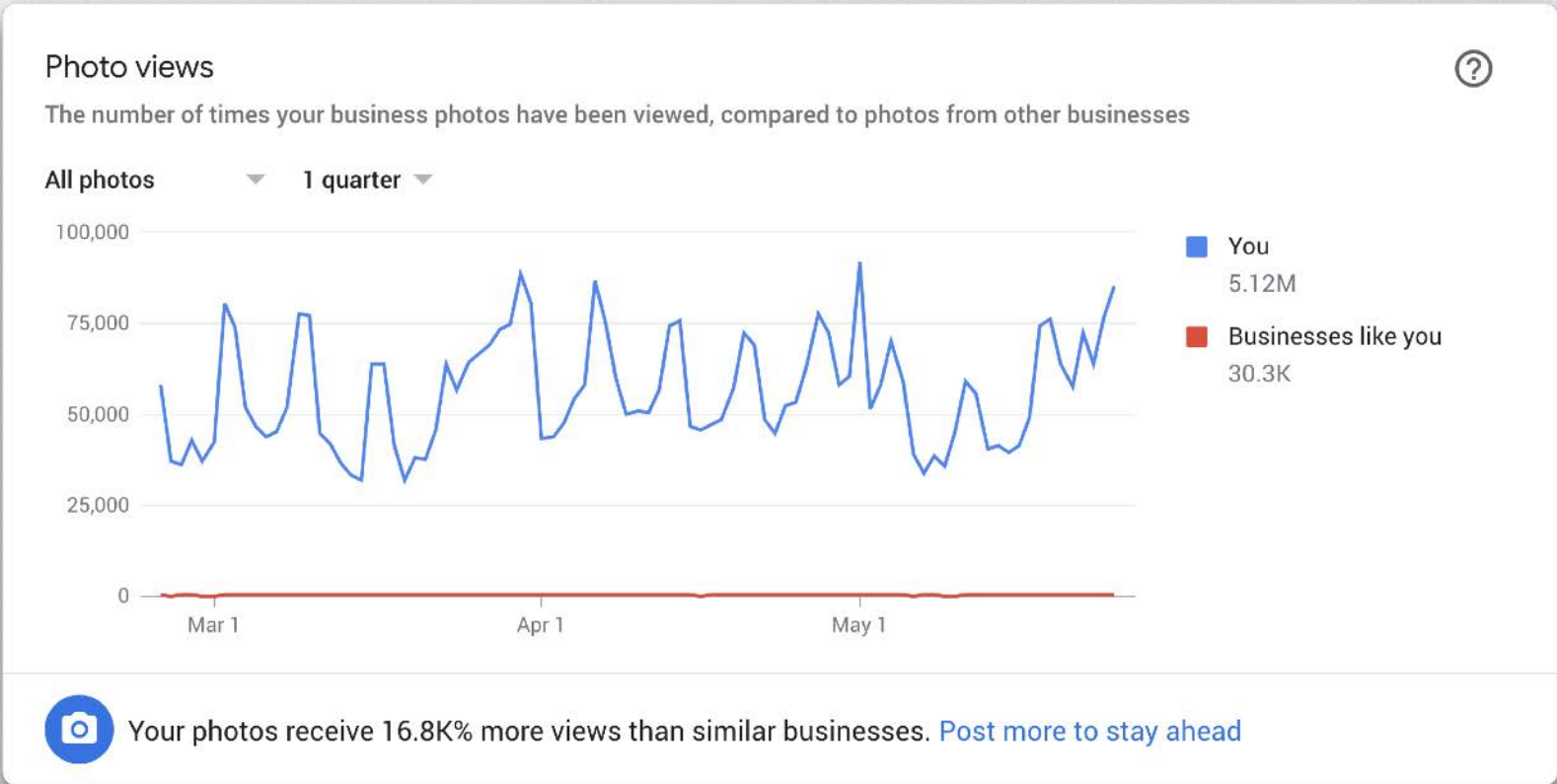
B



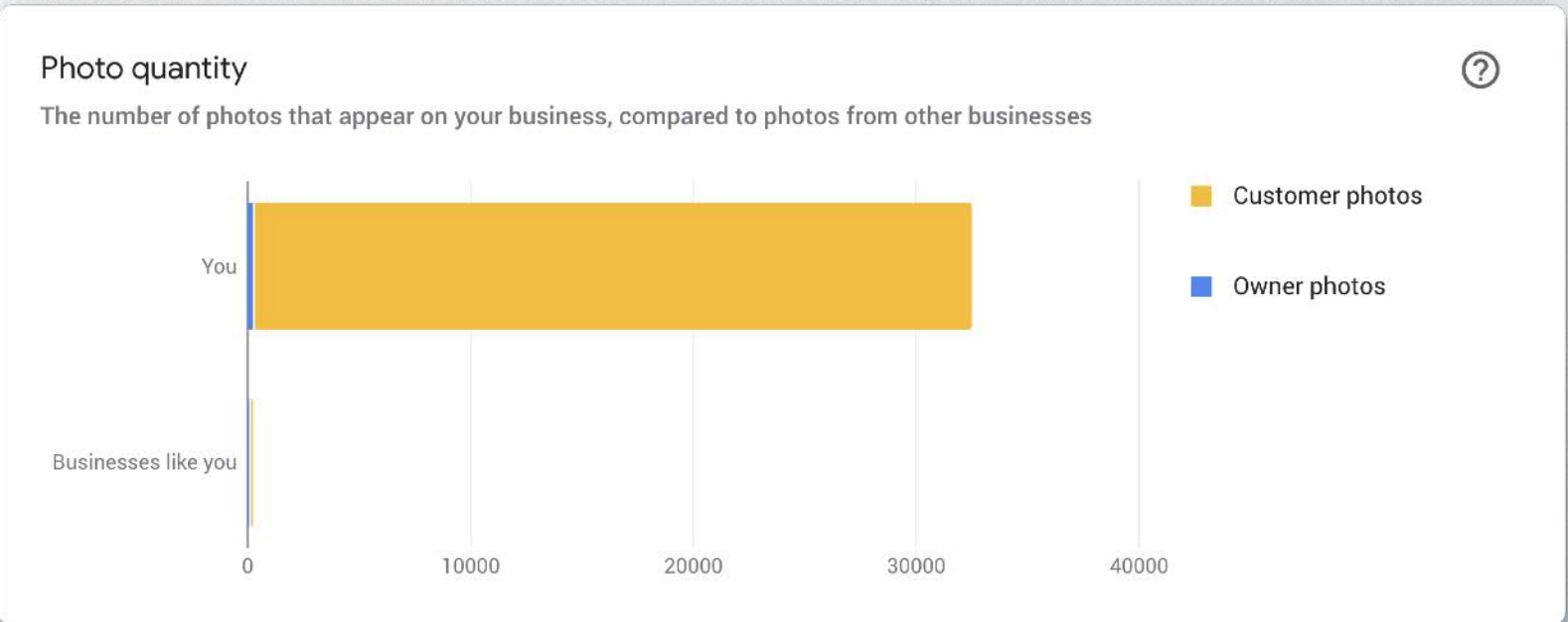
C



D



E

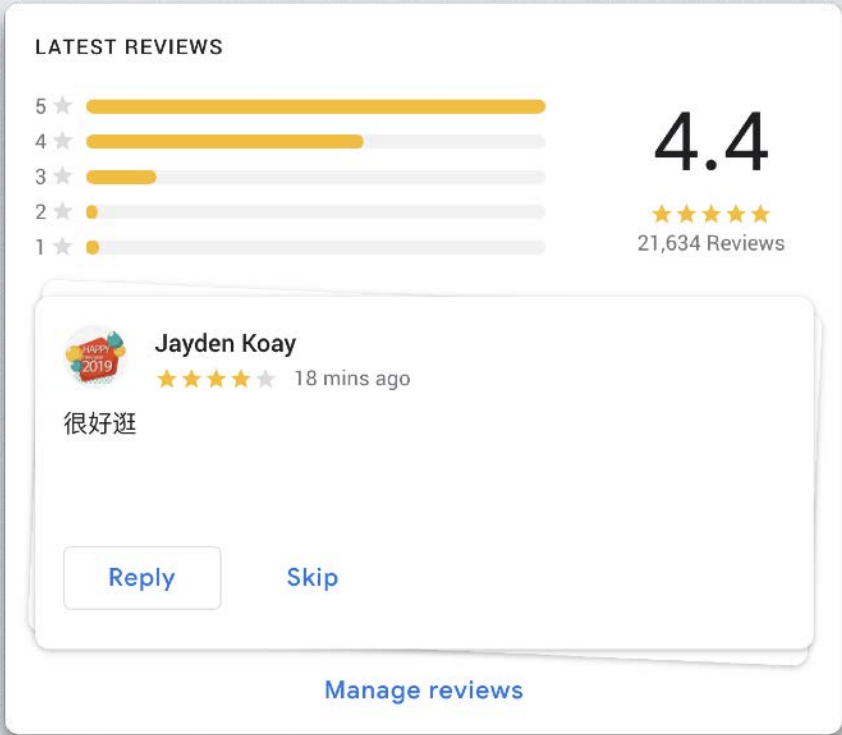
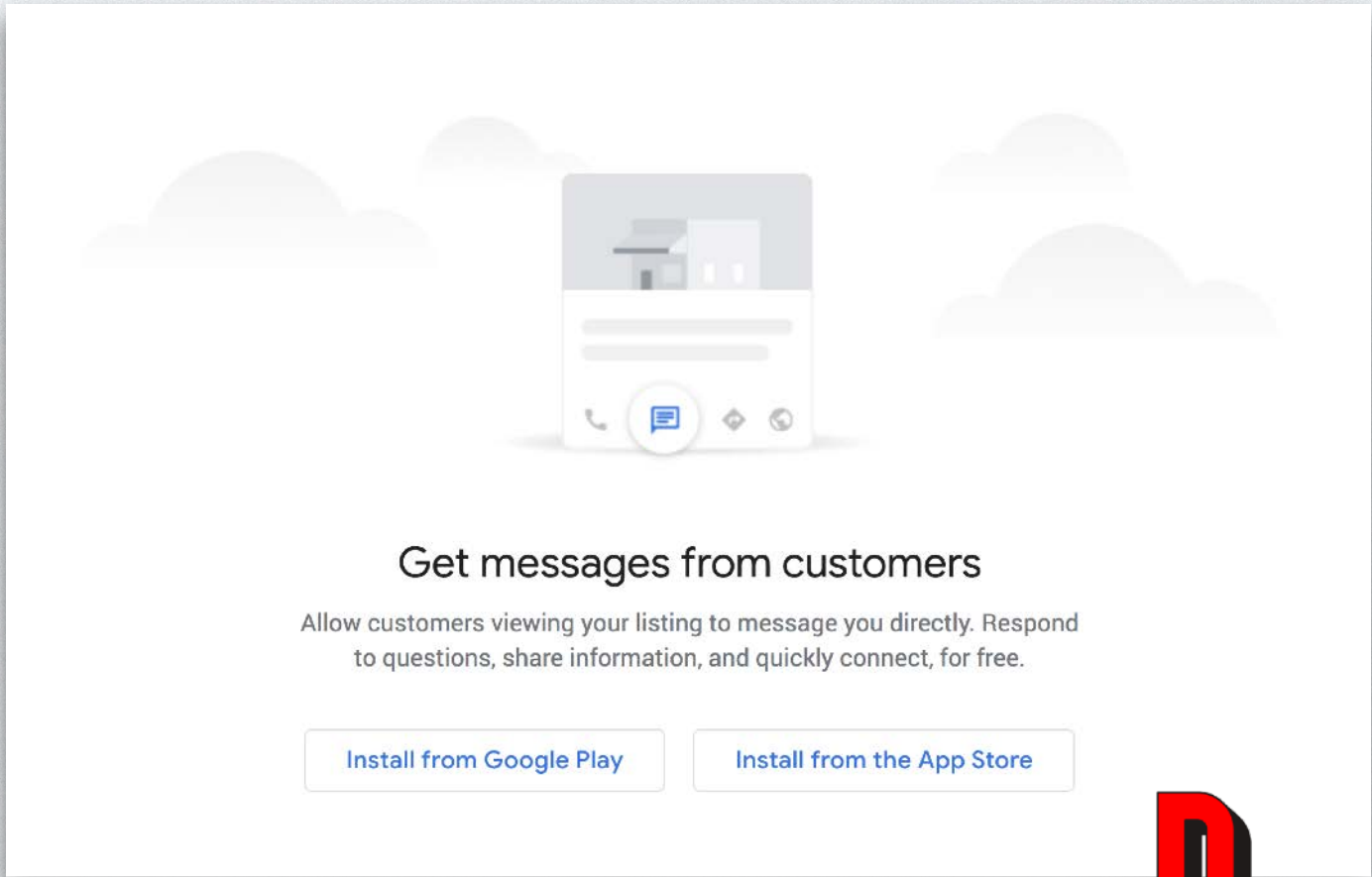
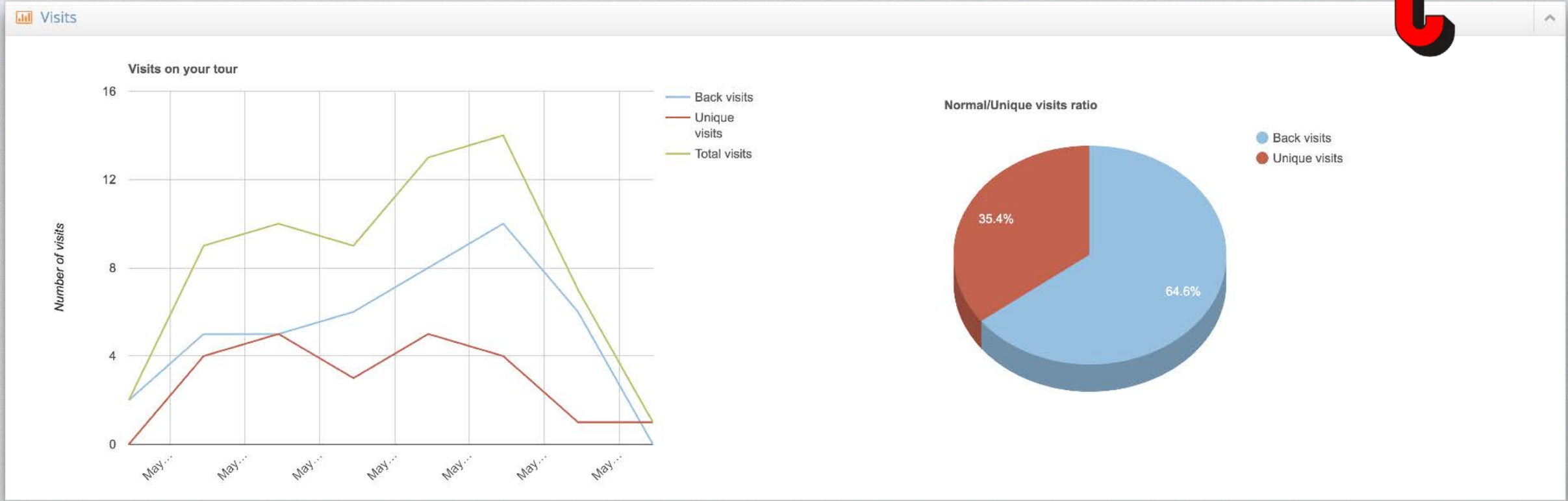
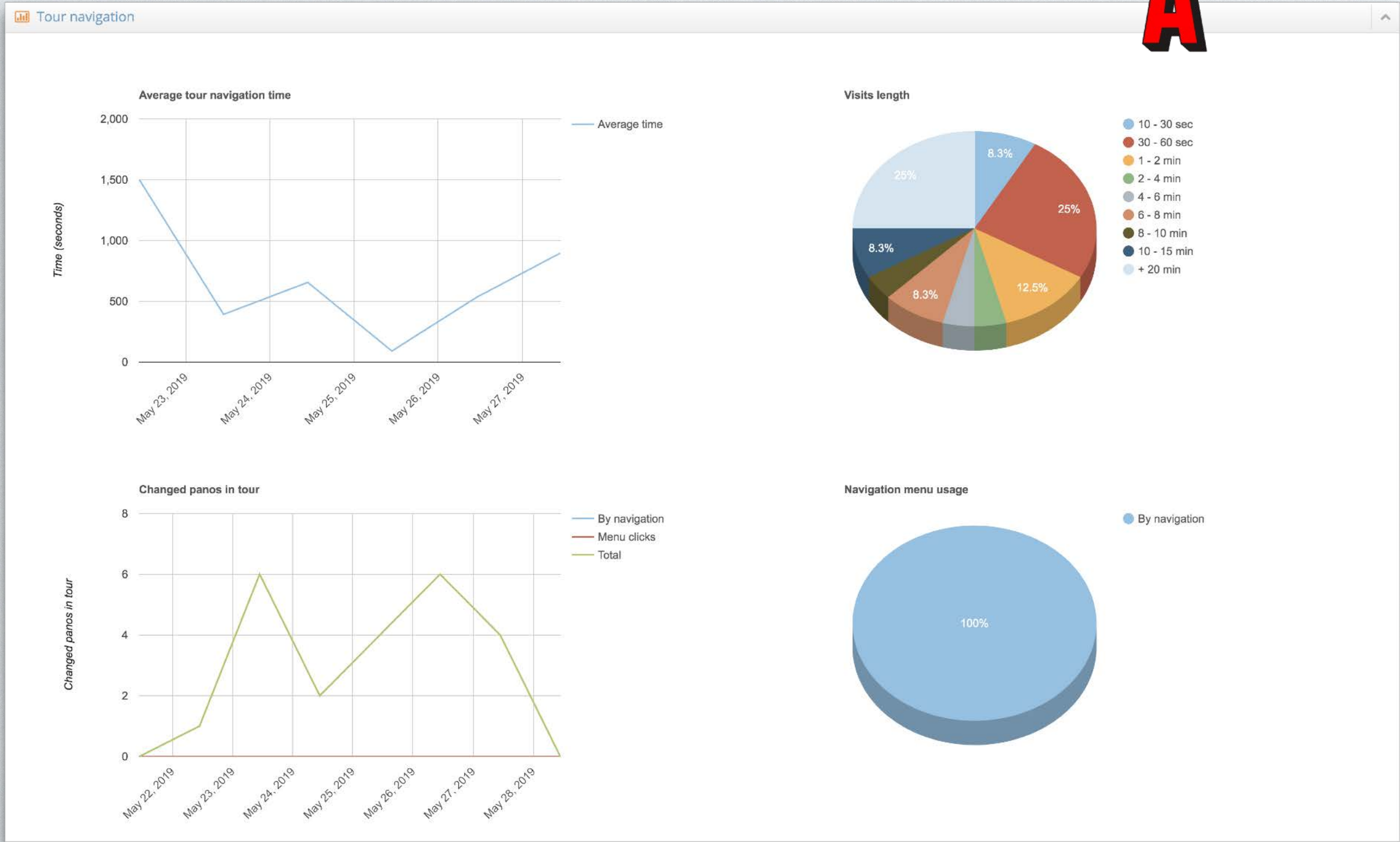


HOW LOCATION INTELLIGENCE CAN ENHANCE TOURISM

- **Location Data makes Tourism Marketing more Effective:** Marketing Budget that is not allocated carefully on target audience's location is not effective most of the time.
- **Source of Journey and Route data are very valuable information:** Geolocation and Preferred routes used by Tourists can open limitless opportunities for retargeting and tourism traffic management.
- **Location intelligence is the future:** Precious data of consumer habits is changing the shape of Tourism Strategy and structure.
- **Location Analytics is the missing piece in your Tourist journey:** Location insights combined with other data, such as profiles of your Tourists and their online habits, reveal other trends that could be groundbreaking for related businesses and tourist attractions.

2&3. ANALYTICS OF THE SYSTEM AND CRM

- A. Time spent in System
- B. Visit/Menu/Time Rankings
- C. Unique/Back Visits
- D. (CRM) Customer Direct Messaging System
- E. (CRM) Review Management



A SYSTEM FOR ALL STAGES OF A TRIP

A. Pre-Trip: Planning and Reservation

While planning a trip, most of reservations are online. Now marketing a destination can have technological surprises such as A Virtual Reality guide for Penang. Very effective Inbound tactic that motivates tourist to use the same platform again the future.

B. @ Penang: Cell phone, the Best Co-pilot

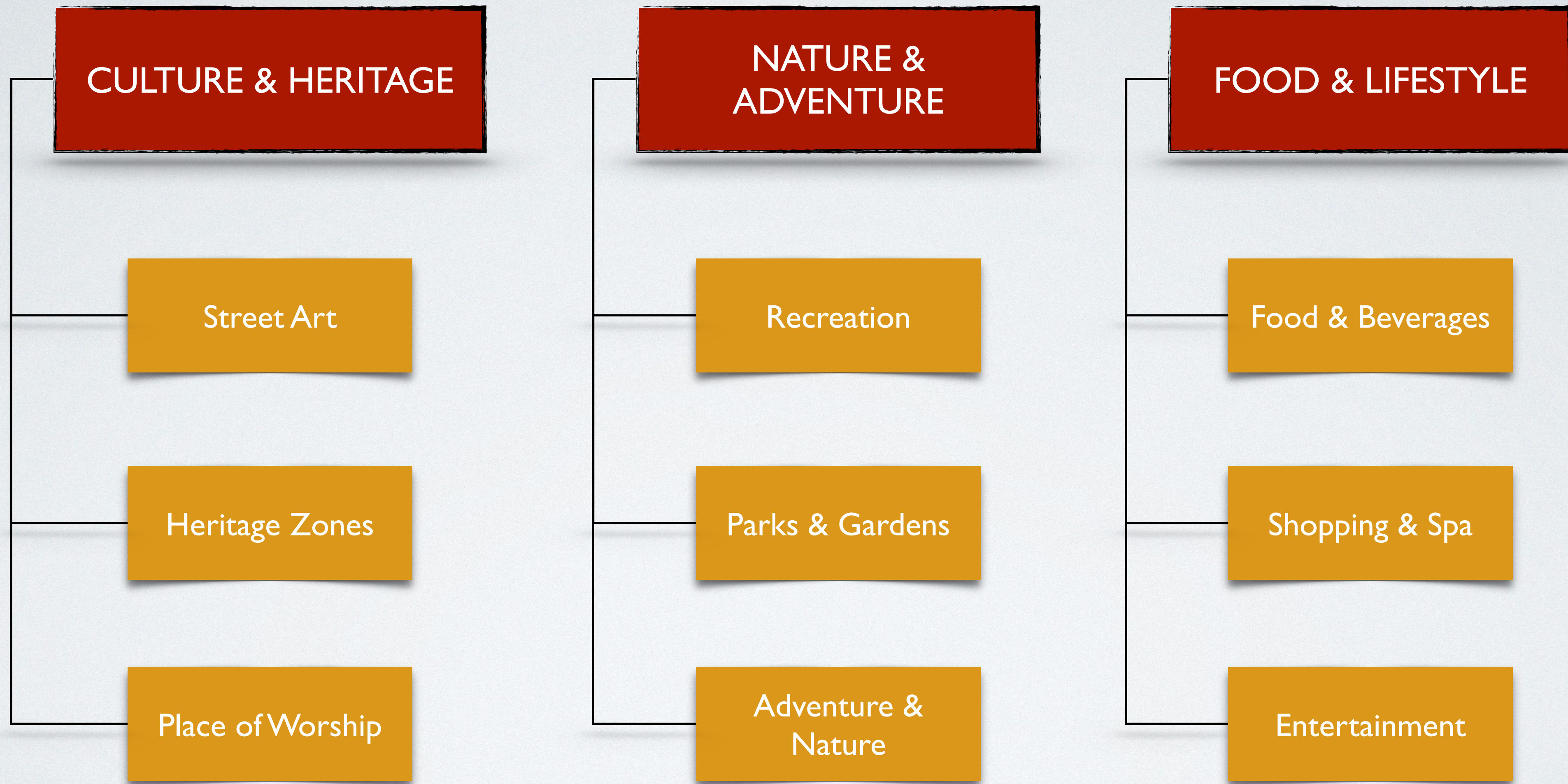
Traveling with a Smartphone and data is a revelation. Planner, Fact finder a Guide and basically Swiss army knife of current tourists.

C. Post-Trip: Sharing is Living

Internet philosophy: collaborating and sharing knowledge so everyone can find them. The travel industry is one where interaction with the consumer is becoming more critical, and the technological advances are letting corporations get closer and know their customers better.

This is undoubtedly the main character in the new ways of travel. The **cell phone** has become our tour guide, travel agency, best restaurant locator, map, and more. It's by our side during the entire purchase journey. In fact, according to **TripAdvisor, 45% of users use their smartphone** for everything having to do with their vacations.

MAIN ATTRACTION CATEGORIES IN PENANG



ATTRACTION SUBCATEGORIES IN PENANG

Culture and Heritage	Bicycle Rentals	10	Nature & Adventure	Balik Pulau	24	Food & Lifestyle	After Dark	70
	Classes	37		Beaches	10		Bakeries	54
	Heritage	189		Nature & Adventure	13		Cruises	7
	Marking Penang	0		Public Parks & Gardens	6		Entertainment	44
	Museum and Art Galleries	60		Sport & Recreation	24		Food Beverage	319
	Places of Worship	28		Themed Parks & Gardens	5		Shopping	170
	Street Art	26		Tours	12		Spas & Massages	18
	Tours	8					Tours	3
	358			94			685	
	Total number of Locations	1137						

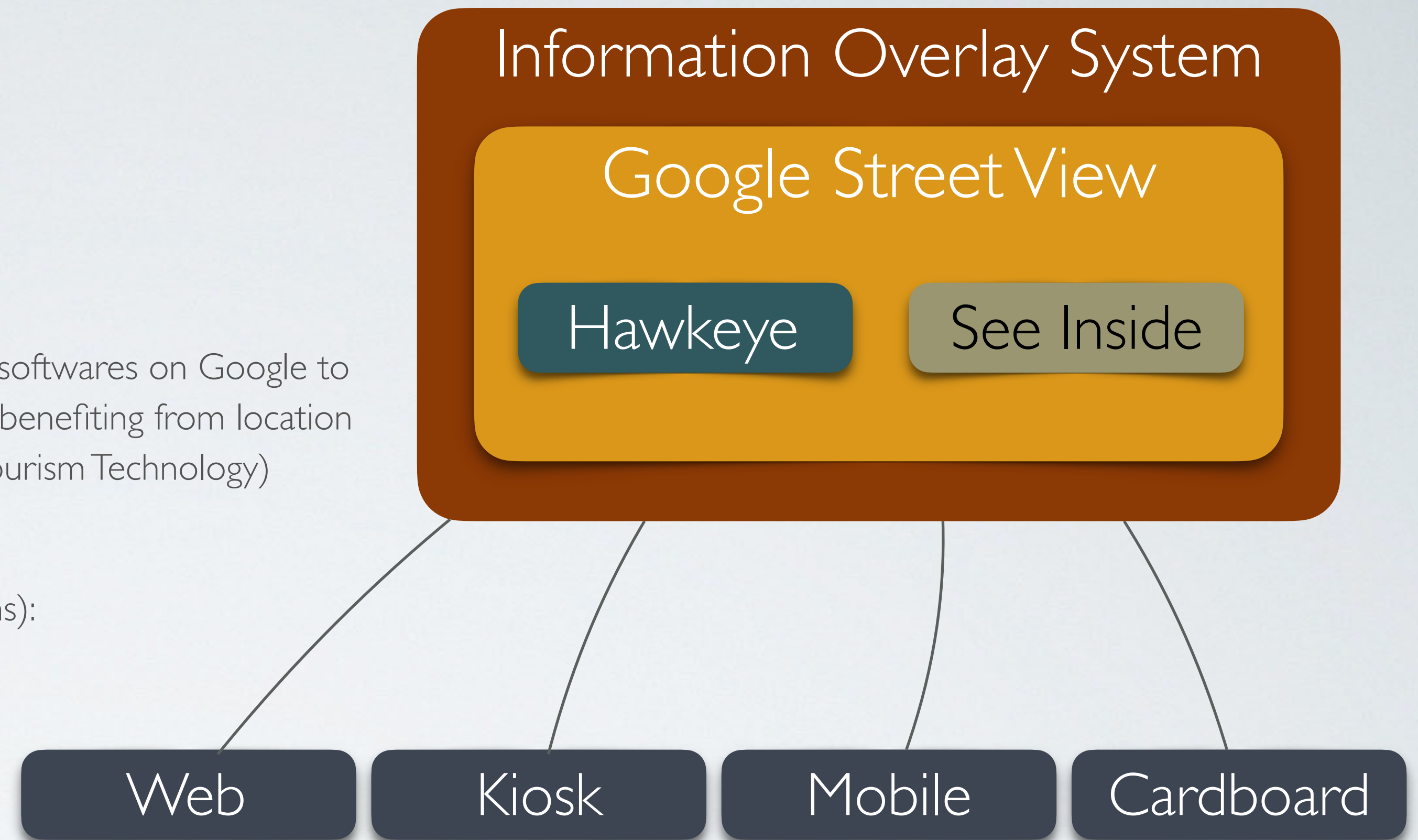
Reference: PGT Mobile App and <https://www.mypenang.gov.my> *

PROPOSAL

This proposal is focused on providing an infrastructure of content and softwares on Google to provide a platform for implementing unlimited future services that are benefiting from location based information. (VR-Penang Journey Planner, e-Penang Guide and Tourism Technology)

Breakdown of Activities in Phase I (400 of total 1137 Tourist attractions):

- Hawkeye Production (Aerial Views of Gorge Town)
- See Inside (Street View from 400 Tourist Attractions)
- Information Overlay (Combining Hawkeye and See Inside + Data Entry)
- Mobile App Development (Bringing the result after overlay to an Installable mobile app)
- Kiosk Design, Build and Installation (In 2 Pilot locations, Preferably tourist entrance points)
- Design and Build Custom Google Cardboard for VR Experience

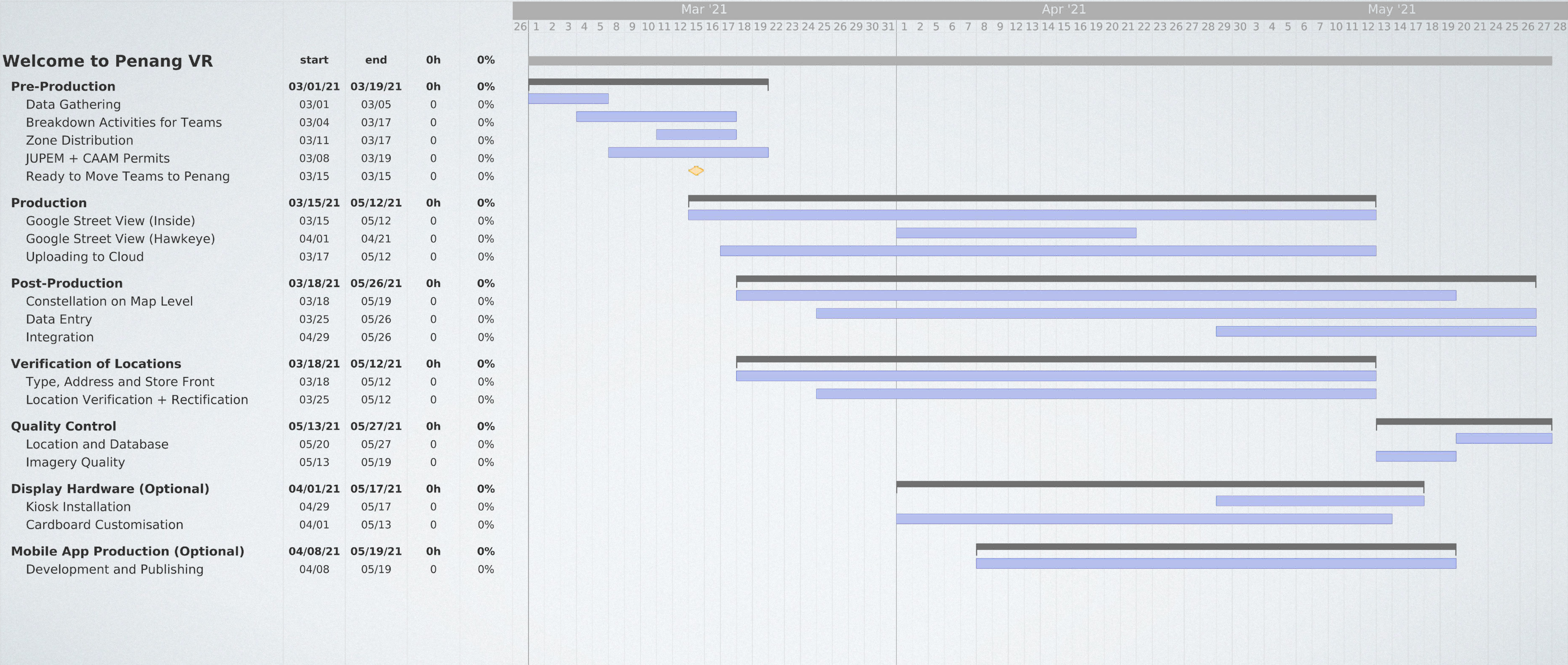


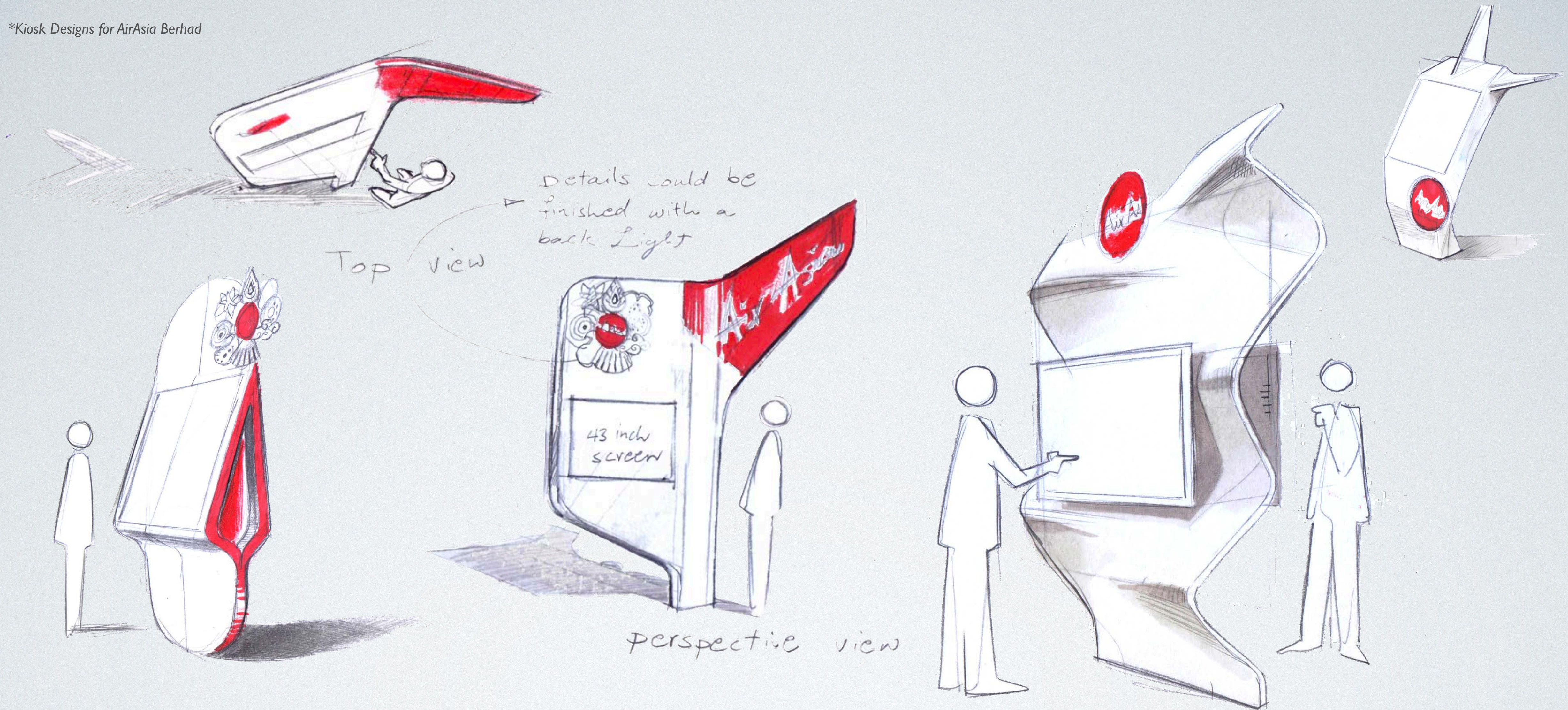
• Optional Services Presented but not calculated in total cost of Proposal

ESTIMATED COST FOR PHASE I (FIRST 400 LOCATIONS FROM TOTAL OF 1137)

Content, Software and Hardware	Units	Unit Price	Price
Hawkeye Aerial Views	80	RM 2,800	RM 224,000
VR Ground Points + Location Rectification	400	RM 500	RM 200,000
Information Overlay System + Data Entry	1	RM 20,700	RM 20,700
Mobile Application	1	RM 32,200	RM 32,200
Jupem + CAAM Permits	10	RM 934	RM 9,340
Kiosk Design + Build (Optional)	2	RM 31,500	(Not included)
Mobile App (Optional)	1	RM 32,200	(Not included)
Customised Google Cardboard (Optional)	500	RM 87	(Not included)
Subtotal:			RM 486,240.00
Sales and Service Tax (SST %6)			RM 29,174.40
Total:			RM 515,414.40

ACTIVITIES BREAKDOWN AND GANTT CHART





Kiosk Design

Design and production of customised kiosks that are following design language of PGT and are fully compatible with Dynamic Information System and Google Street View.

two screens at both sides.
Form resembling waves of Air/sea

Google Cardboard

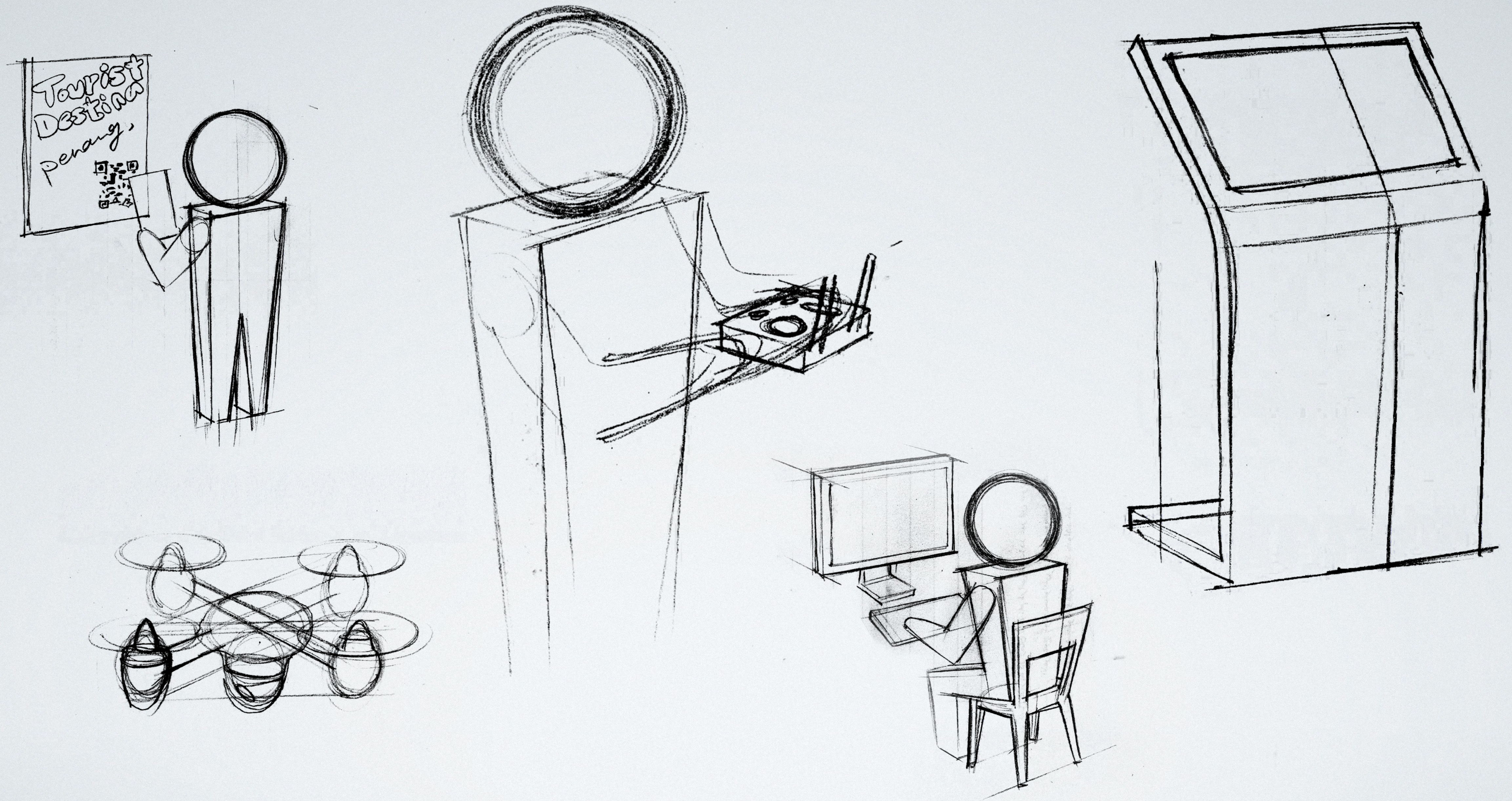
For an immersive presentation of project and Virtual reality Demonstration of Penang, Google cardboard Provided with project information and QR code for a fast and convenient access.



**Customised Google Cardboard for Maple Residences Putrajaya*



LOOKING FORWARD TO WORKING WITH YOU!



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Thank you