Product Management Case Study
Space Tourism

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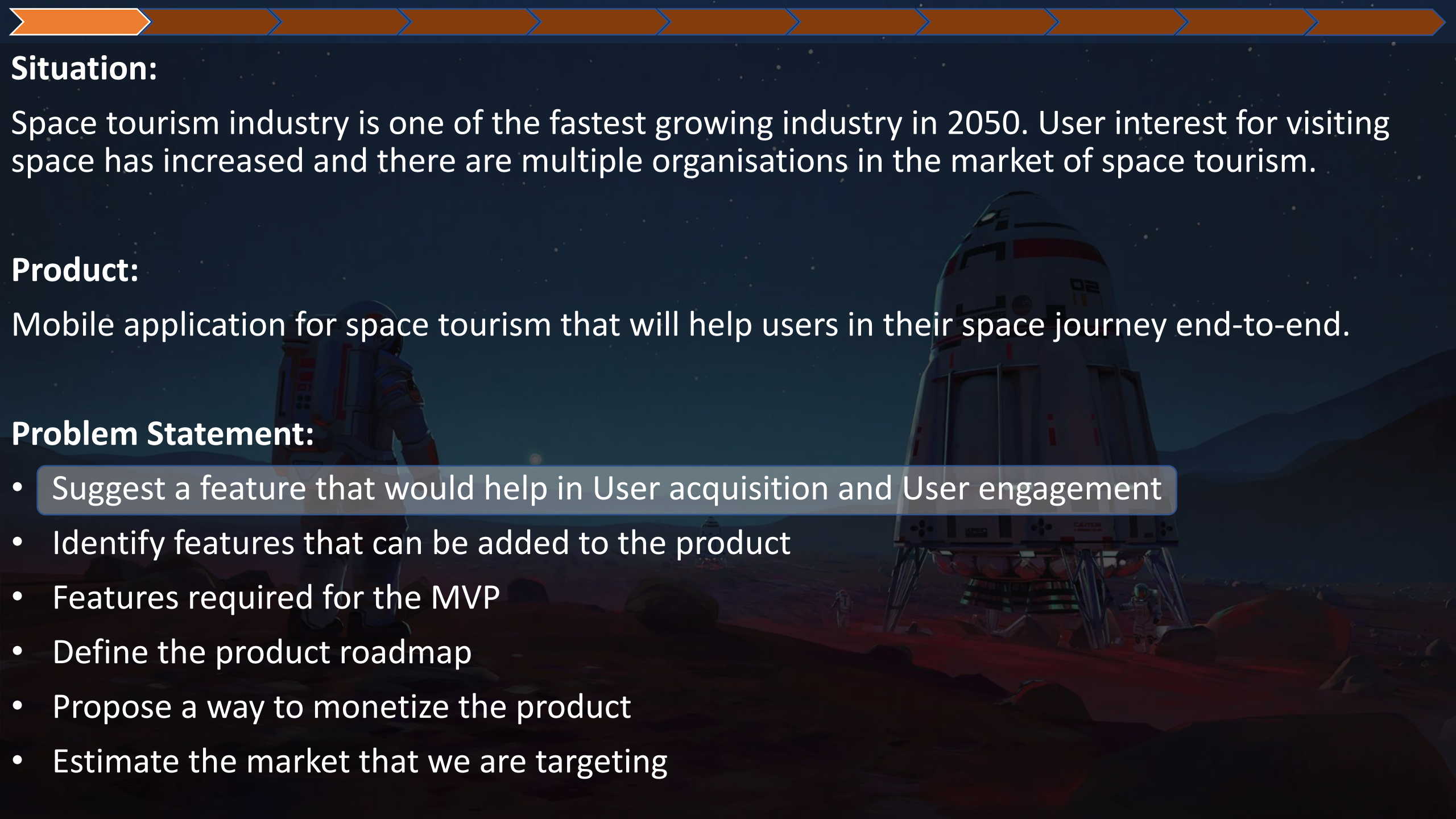
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Situation:

Space tourism industry is one of the fastest growing industry in 2050. User interest for visiting space has increased and there are multiple organisations in the market of space tourism.

Product:

Mobile application for space tourism that will help users in their space journey end-to-end.

Problem Statement:

- Suggest a feature that would help in User acquisition and User engagement

- Identify features that can be added to the product

- Features required for the MVP

- Define the product roadmap

- Propose a way to monetize the product

- Estimate the market that we are targeting

User Persona and their Requirements:

All Stakeholders

Space tour & training providers:
Who give travel trainings to tourist, take them to the space and handle whole tour.

Space tourists/ potential tourists:
People who travel to the space. They will be huge part of customer base for our product.

Hotel & travel agencies:
Flights, cabs and hotels which are required to the travelers to reach to the launchpad of space shuttle.

Medical & legal service providers:
Some medical prerequisites will be there for tourists and legal permit, visa etc. will be required.

Target User Persona

Ultra rich individuals & families who are interested in space tour, want to have enriching experience and can afford it for whole family.

High income individuals who seek extreme adventure and want to explore the space tourism and its activities

Mid income individuals who are excited about space and want to experience the zero-gravity once in their life.

People(connections of tourists) who want to see live updates of tourists regarding their activities, geo-location, etc.

Customer Requirements

- All about the space and space tour
- Travel & booking details; packages & offers info
- Need confidence about safety
- hassles free bookings
- Do not want to spend time to find available slots for trip
- Need assistance before and during the trip
- Do not want to spend time on pre-trip medical tests, legal approval, visa, etc.
- Want to share about it on social media
- Want some easy payment options
- Medical assistance when they arrive to the earth
- Post trip merchandise purchases

User Persona and their Requirements:

| Customer Requirement	Proposed Feature	Feature Description	Customer Value		Ease of Development (0-10)	Business Value (Strategic / future aspects) (0-10)	Overall Score (Out of 40)
			Acquisition (0-10)	Engagement (0-10)			
Travel & booking details; packages & offers info	Travel Info	A catalogue within the application which contains all the trips, their information, important dates, packages, activities and offers.	8	7	8	6	29
Tour booking and customization of package	Booking	A booking page that will show the available slots of tour with dates, charges and customization options.	7	7	7	8	28
Need easy payment/ EMI/ loan option	Easy Pay	At the time of payment booking there will be an option to apply for loan/EMI. Loan will be provided by loan partners and whole process will be handled by the app.	5	5	8	7	25
Do not want to spend time on pre-trip medical tests, legal permits, visa, etc.	Flash service	The application has feature to apply for the medical tests, legal permit & visa as these will be needed for the tour. Service will be provided by partners.	6	6	8	6	26
Insights about Space tour **People on earth wants to see live update** **Need confidence about safety**	**Community Interact**	**A platform where tourists can put live updates, share their stories, audio-visual content; other users who want to travel in near future can see, read these stories and have insights about the tour; Service partners can put their promo, show the data of success rates, get rated by the community.**	**8**	**9**	**7**	**9**	**33**
Need assistance before and during the tour	The Root	An artificial personal assistant that will be integrated with app that will be integrated with the space suit and provide the assistance during the trip.	5	5	3	6	19
Post trip customized merchandise purchases	My Shop	In app online shopping feature where users can buy customized clothes, stationary, mugs, etc. These merchandise will be related to space.	7	7	6	7	27
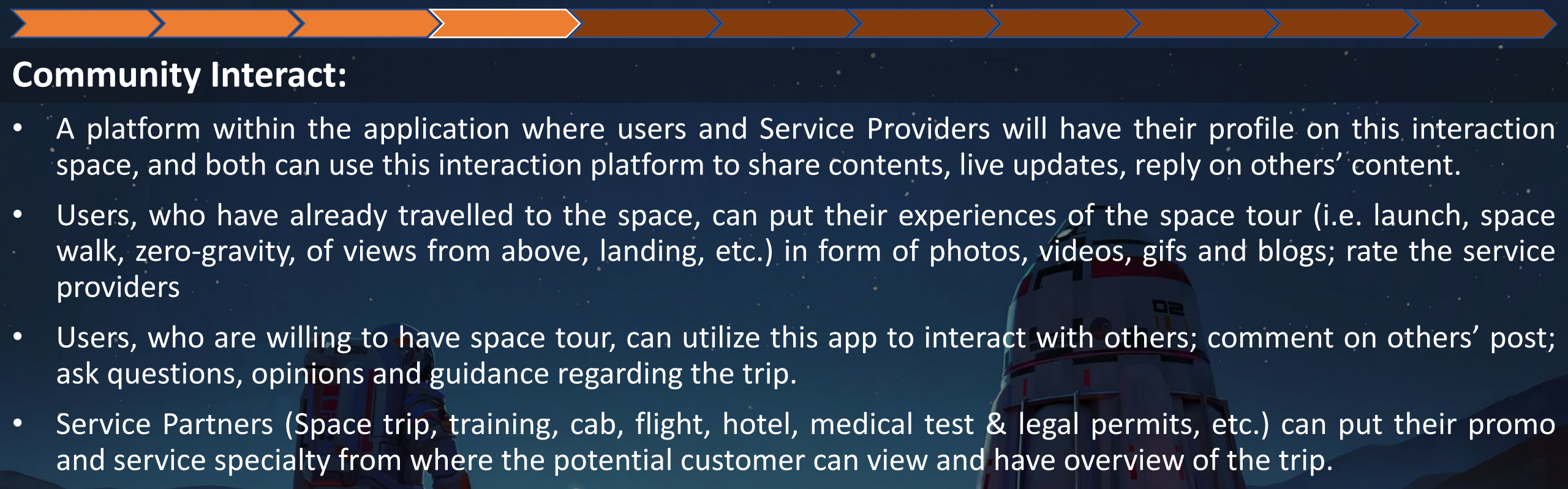
Community Interact:

- A platform within the application where users and Service Providers will have their profile on this interaction space, and both can use this interaction platform to share contents, live updates, reply on others' content.

- Users, who have already travelled to the space, can put their experiences of the space tour (i.e. launch, space walk, zero-gravity, of views from above, landing, etc.) in form of photos, videos, gifs and blogs; rate the service providers

- Users, who are willing to have space tour, can utilize this app to interact with others; comment on others' post; ask questions, opinions and guidance regarding the trip.

- Service Partners (Space trip, training, cab, flight, hotel, medical test & legal permits, etc.) can put their promo and service specialty from where the potential customer can view and have overview of the trip.

Goals	Rationale to achieve the goals
- Increase daily usage of the app - Increase daily active user base - Acquire new users	The Community Interact feature in the application would provide users a platform where they can connect with other users (ones who already travelled to space + others who are willing to go to). Along with this, new users can view our partners' promo and features; And ex-tourist can provide feedback about the services they had in past. This would increase the app usage and active user base. As Daily Active Users would increase, all service providers would register to our application that would further lead to user acquisition.

Wireframe

Community Interact:
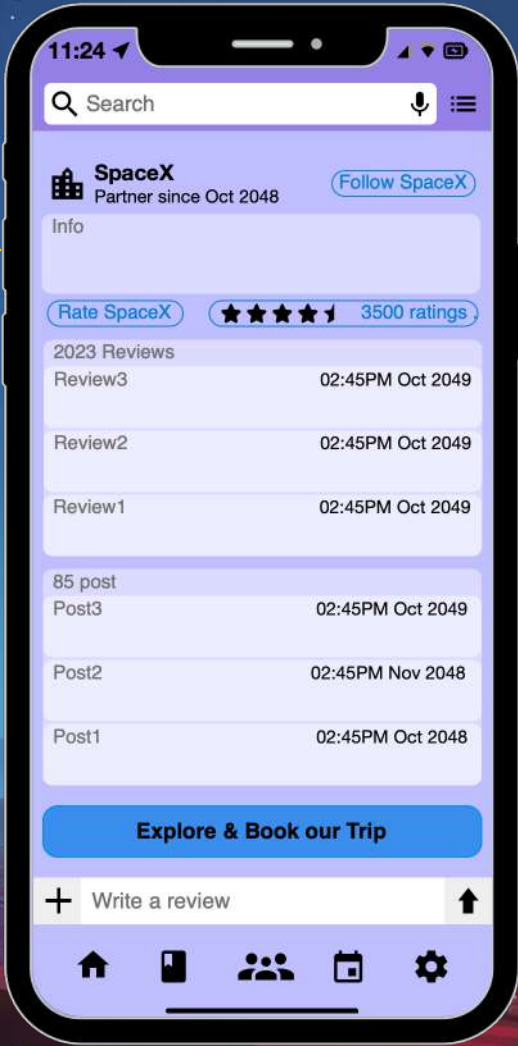
Feature's Performance Metrics:

Analysis of some metrics would provide the performance of the Community Interact feature. Some of these metrics are given below:

Monthly New users	→ New user signup should increase
Daily Feature Usage	→ It can be further analyzed to check specific usage of platform
No. of Posts, Views, Praises/Day	→ Posts, views, replies, praises count shows the engagement
Redirects to the Booking Page	→ It shows that our feature motivates users for booking
Monthly Active Users	→ It will help us to gain more service partners

Negative Metrics:
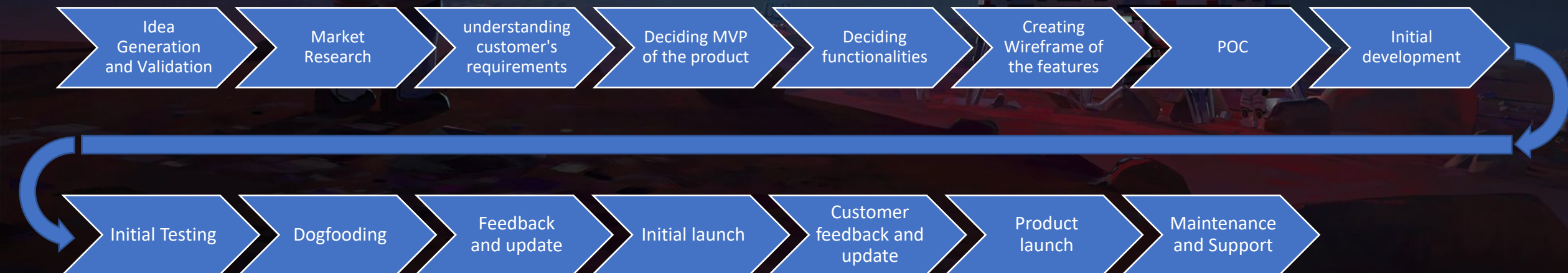
Customer dissatisfaction and negative reviews

New users not using the Community Interact feature after initial period

Number of users who are not using the feature after the tour

Other Features Required for MVP:

- Sign up/sign in using email /phone no./ social media account

- Search & filter of upcoming trips according to availability, date, cost, partners, customer rating

- Easy Booking/reschedule/cancellations of the tour from app itself.

- Community interact platform

- Details of all partners, tour activities, prices, insurance, prerequisites

- Service bookings like medical tests, trainings, legal approvals, etc

- Packaged/ bundle offer; Chat window for customer care and issues

Product Roadmap:

Idea Generation and Validation → Market Research → understanding customer's requirements → Deciding MVP of the product → Deciding functionalities → Creating Wireframe of the features → POC → Initial development →

Initial Testing → Dogfooding → Feedback and update → Initial launch → Customer feedback and update → Product launch → Maintenance and Support

Market Estimation: (Projected USA population in 2050 – 390 million)

Age Group	Population (millions)
Upto 18	78
18 to 44	130
45 to 64	95
65 and over	85

Age Group 18 to 44	Distribution	Population (millions)	Able and willing to space travel	Number of customers (millions)
Low Income	30%	39		
Mid Income	55%	71.5	5%	3.575
High Income	10%	13	40%	5.2
HNWI	5%	6.5	50%	3.25

Age Group 45 to 64	Distribution	Population (millions)	Able and willing to space travel	Number of customers (millions)
Low Income	20%	19		
Mid Income	50%	47.5	10%	4.75
High Income	20%	19	40%	7.6
HNWI	10%	9.5	60%	5.7

Age Group 65 and Over	Distribution	Population (millions)	Able and willing to space travel	No of customers (millions)
Low Income	15%	12.75		
Mid Income	50%	42.5	10%	4.25
High Income	25%	21.25	40%	8.5
HNWI	10%	8.5	30%	2.55

Estimate Market Size in USA = (3.575+5.2+3.25) + (4.75+7.6+5.7) + (4.25+8.5+2.55)

       = 12.025+18.05+15.3

       = 45.375 million

Assumption: USA accounts for 40% of the global space tourism market.
Since USA is home for most of the leading space tourism industry.
Rest of the world (60%) = 68.06
Total Global Market Size = 113.44 million

We plan to capture 25% of the market i.e 28.36 million
The price of the ticket will be USD 20,000 inclusive of training, medical, Insurance, food, Legal(permit/Visa),etc and we will be charging USD 500 per customer from the Service provider.
So, the revenue will be 28.36*500 = 14.18 Billion USD

Way to monetize the product:

Process	Required Features	Partnerships
1. Increase userbase & user engagement from the Community Interact feature	1. Community Interact feature	1. Space tour providing companies
2. Booking of tour, training and all required services from the app itself	2. Platform to book the space tour, required training for trip	2. Bank and payment service partners for payment of booking and for the loan application
3. We would charge customers a fees from for booking of space tour, flights, hotels, cabs etc.	3. Option to book travel (flight, bus, train, cab) and stay to reach to the launch place	3. Hospitals and Test labs for doorstep medical testing
4. We would charge our service partners (Loan and Insurance providers, etc.) for based on the number of customers who bought their services	4. Insurance options and Loan options within app itself.	4. Insurance companies for insurance of the travelers
5. Selling of personalized Merchandise related to space tour	5. Online booking of doorstep medical tests facility which will be required prior to the trip	5. Hotels for food and stay booking
	6. Online facility for the legal permits, visa, etc.	6. Transport agencies for travel booking
		7. Training partners for the booking of pre-trip trainings

Rational about monetization

Our Community Interact feature will increase hype about the space tour. More and more people who have interest in space will join our app. And they will keen towards booking of trip. High earning class will book trip, and middle-class people will start saving for the trip. Space travel will be new Disney land.

Reference:
https://www.worldometers.info/world-population/world-population-projections/
https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1144.pdf
https://www.industryarc.com/Report/19394/space-tourism-market.html

Thank you