ENGINEERING ENTREPRENEURSHIP AND IPR

Module 2

Module 2

Problem and solution canvas preparation

- ❑ Orientation and canvas introduction
- ❑ Customer needs assessment
- ❑ Market segmentation
- ❑ Value proposition
- ❑ Competitive analysis
- ❑ Market entry strategy
- ❑ Market validation
- ❑ Regulatory and legal considerations

Customer profiling

- ❑ Review of market research
- ❑ Customer segmentation
- ❑ Customer profiling
- ❑ Persona development
- ❑ Validation and feedback
- ❑ Prioritisation and selection
- ❑ Communication and messaging

Competitor analysis

- ❑ Identify competitors
- ❑ Competitor profiling
- ❑ SWOT analysis
- ❑ Market positioning
- ❑ Customer feedback and reviews
- ❑ Pricing analysis
- ❑ Differentiation strategy
- ❑ Benchmarking and improvement

Problem and solution canvas preparation:

❏ Helps identify and address business challenges through customer needs assessment, market segmentation, and value proposition development.

Customer Profiling:

❏ Creating detailed representations of business's ideal customers based on data-driven insights.
❏ It includes market research, customer segmentation, and persona development.

Competitor Analysis:

❏ a vital process for gaining strategic insights by identifying competitors, conducting SWOT analysis, and developing differentiation strategies.

Together, these topics provide a comprehensive framework for creating, validating, and refining business strategies in a competitive market landscape.

Problem and solution canvas preparation

- Strategic tool used to identify and address business challenges systematically

- Tool for entrepreneurs, marketers and corporate innovators, which *helps them identify solutions with higher chances for solution adoption, reduce time spent on solution testing and get a better overview of current situation.* It involves understanding customer needs

- Segmenting the market, defining a value proposition, and planning market entry strategies. This approach ensures that solutions are tailored to real market demands and are competitive.

Steps involved in Problem and Solution Canvas preparation

- **Step 1:** Orientation and Canvas Introduction
- **Step 2 :** Customer Needs Assessment
- **Step 3 :** Market Segmentation
- **Step 4 :** Value Proposition
- **Step 5 :** Competitive Analysis
- **Step 6 :** Market Entry Strategy
- **Step7 :** Market Validation
- **Step8 :** Regulatory and Legal Considerations

Steps involved in Problem and Solution Canvas preparation

Step 1: Orientation and Canvas Introduction
- ❑ Introduce the Problem and Solution Canvas and its purpose.
- ❑ Explain the benefits of using the canvas, such as identifying customer needs, designing innovative solutions, and creating a competitive advantage.
- ❑ Ensure all team members understand the canvas's structure and the process.

Step 2: Customer Needs Assessment
- ❑ Identify the target customer segment and their needs.
- ❑ Conduct research to gather information about customer pain points, goals, and behaviours.
- ❑ Document customer needs, including emotional, social, and functional requirements.

Step 3: Market Segmentation
- ❑ Identify specific customer segments within the target market.
- ❑ Analyze demographic, geographic, psychographic, and behavioral characteristics.
- ❑ Determine the most relevant segments for the solution.

Steps involved in Problem and Solution Canvas preparation

Step 4: Value Proposition
- ❑ Define the unique value proposition (UVP) of the solution.
- ❑ Describe how the solution addresses customer needs and pain points.
- ❑ Identify the key benefits, features, and differentiators of the solution.

Step 5: Competitive Analysis
- ❑ Research existing solutions and competitors in the market.
- ❑ Analyze their strengths, weaknesses, and market positioning.
- ❑ Identify gaps in the market and opportunities for differentiation.

Step 6: Market Entry Strategy
- ❑ Determine the most effective way to enter the market.
- ❑ Consider factors such as marketing channels, pricing, and distribution.
- ❑ Develop a plan for launching and promoting the solution.

Steps involved in Problem and Solution Canvas preparation

Step 7: Market Validation
- ❏ Test the solution with a small group of customers to gather feedback.
- ❏ Validate assumptions about customer needs, pain points, and willingness to pay.
- ❏ Refine the solution based on feedback and iteration.

Step 8: Regulatory and Legal Considerations
- ❏ Research and comply with relevant laws, regulations, and industry standards.
- ❏ Ensure the solution meets all necessary requirements and certifications.
- ❏ Develop a plan for ongoing compliance and risk management.

1. Orientation and Canvas Introduction

❑ Introduce the Problem and Solution Canvas and its purpose.

❑ Explain the benefits of using the canvas, such as identifying customer needs, designing innovative solutions, and creating a competitive advantage.

❑ Ensure all team members understand the canvas's structure and the process.

Example 1: Startup Incubator Program - A startup incubator in Bangalore uses workshops to teach entrepreneurs how to use the canvas to map out their business ideas.

➢ **Action**: Introduce the canvas to new startups, explaining each section and its importance in developing a business strategy.

2. Customer Needs Assessment

❑Identify the target customer segment and their needs.

❑Conduct research to gather information about customer pain points, goals, and behaviours.

❑Document customer needs, including emotional, social, and functional requirements.

Example 1: Mobile Payment Solutions – A fintech company in Delhi discovers that small retailers need a low-cost, easy-to-use mobile payment solution.

Action: Conduct surveys and interviews with small business owners to understand their payment processing challenges.

Example 2: Organic Farming Products - An agritech startup in Punjab learns that farmers are looking for affordable, effective organic products to increase crop yields.

Action: Engage with farmers to identify their needs for organic fertilizers and pest control.

Example: A coffee shop chain

Target Customer: Young professionals (25-40 years old) who frequent coffee shops

Research Methods: Online surveys. In-store interviews, Social media listening, Focus groups **Customer Needs Assessment:**

1. Functional Needs: Convenient location - Quick service - High-quality coffee - Comfortable seating

2. Emotional Needs: - Relaxation and stress relief - Socialization and community - Feeling energized and focused - Treat and indulgence

3. Social Needs: - Meeting friends or colleagues - Working or studying - People-watching - Feeling part of a community

4. Pain Points: - Long lines or wait times - Poor coffee quality - Uncomfortable seating or ambiance - Limited food or snack options

Customer Quotes:

1. "I need a coffee shop that's close to my office, so I can grab a quick coffee before work."

2. 2. "I love coffee shops that have comfortable seating and a relaxed atmosphere. It's my favorite place to study or work."

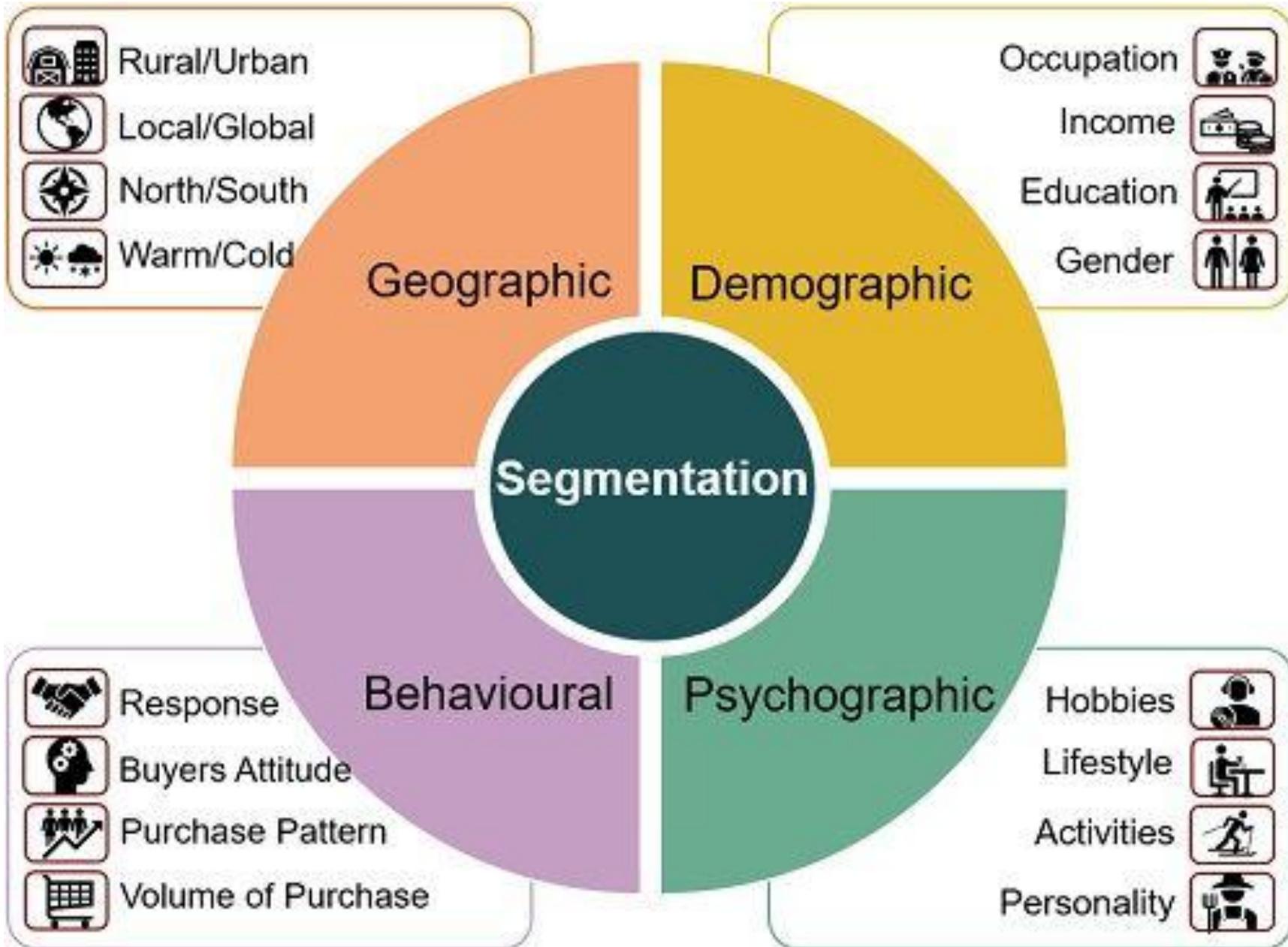3. 3. "I'm willing to pay more for high-quality coffee, but I expect it to be made quickly and correctly."

3. Market Segmentation

❑ In the market segmentation step the market is divided into smaller, and more manageable segments, based on demographics, psychographics, behaviour, and geographic criteria.

❑ Identify specific customer segments within the target market.

❑ Analyze demographic, geographic, psychographic, and behavioural characteristics.

❑ Determine the most relevant segments for the solution

Importance:

➢ Ensures tailored marketing efforts.

➢ Helps in allocating resources efficiently.

Geographic
- Rural/Urban
- Local/Global
- North/South
- Warm/Cold

Demographic
- Occupation
- Income
- Education
- Gender

Segmentation

Behavioural
- Response
- Buyers Attitude
- Purchase Pattern
- Volume of Purchase

Psychographic
- Hobbies
- Lifestyle
- Activities
- Personality

Example: A fitness center chain

Target Market: People interested in fitness and exercise

Market Segmentation:

1. **Demographic Segmentation:**
    - Age: 25-45 years old
    - Income: Middle to upper-middle class
    - Occupation: Professionals and entrepreneurs

2. **Psychographic Segmentation:**
    - Lifestyle: Health-conscious, active, and interested in wellness
    - Personality: Motivated, disciplined, and goal-oriented
    - Values: Health, fitness, and self-improvement

- 3. **Behavioural Segmentation:**
    - Fitness goals: Weight loss, muscle gain, or overall wellness
    - Exercise habits: Regular gym-goers, runners, or yoga enthusiasts
    - Purchase behaviour: Willing to invest in fitness memberships, personal training, and wellness services

4. Value Proposition

- A value proposition is a promise of value stated by a company that summarizes how the benefit of the company's product or service will be delivered, experienced, and acquired.
- Generally, the value proposition is addressed to the company's target customers or target market segment.
- The proposition takes the form of a short, clear, and concise statement of the tangible and intangible benefits that will be delivered to customers.
- The perfect proposition must quickly transmit the values to potential customers without the need for further explanation.
- Each proposition must be unique, as it is a method to communicate the differentiation points of a company to the target customers.
  - A clear statement describing the unique value your product or service provides to customers.
  - Answers the question: "Why should a customer choose your product over others?"

- **Example 1: Electric Vehicles (EVs) -** An EV manufacturer in Pune emphasizes the long-term savings and eco-friendliness of their scooters.

- ✓ **Action**: Highlight the environmental benefits and cost savings of electric vehicles.

- **Example 2: Telemedicine Services -** A telemedicine startup in Kolkata promotes its service to access quality healthcare from home, especially in rural areas.

- ✓ **Action**: Focus on the convenience and accessibility of remote healthcare.

Example 3 : Booking.com: "A piece of paradise just for you."

Target Audience: Travelers looking for accommodation options worldwide; individuals or groups planning vacations, business trips, or special events; budget-conscious travelers who want competitive pricing; travel enthusiasts interested in **a variety of accommodation styles;** and travelers seeking user-friendly and convenient online booking platforms.

Product or Service: Frictionless booking of hotels, flights, and other travel experiences; an online travel accommodation booking platform; a wide range of accommodation options including hotels, vacation rentals, apartments, and hostels; real-time availability and pricing information for easy comparison; secure online payment options and reservation management; and customer reviews and ratings for informed decision-making.

Benefits and Features: Extensive selection of accommodations around the globe, best-price guarantee and price comparison tool for cost-effective bookings, and a user-friendly platform with easy search and filter options.

Value Map

Gain Creators
- Personalized recs
- Special deals and discounts
- Instant booking confirmation and seamless payment process
- Mobile app to manage reservations

Pain Relievers
- Extensive options for all budgets
- Transparent pricing and availability information
- Verified guest reviews
- Centralized reservation management

Products & Services
Accommodation search and booking platform, price comparison tool, accommodation reviews and ratings, reservation management dashboard.

Customer Profile

Customer Gains
Wide selection, best price guarantee and comparison tool, trusted reviews, convenient reservation management with real-time updates.

Customer Jobs
Find and book accommodation easily and quickly, compare prices and options, access reliable reviews, manage reservations and travel plans in one place.

Customer Pains
Difficulty finding accommodations within budget, no transparency in pricing and availability, uncertain reliability, inconvenience of managing multiple reservations and travel plans.

Customer Profile

•**Customer Jobs:** Find and book accommodation easily and quickly; compare prices and options for hotels, vacation rentals, and other accommodations; access reliable reviews and ratings for accommodations; manage reservations and travel plans in one place.

•**Gains:** Wide selection of accommodations, best price guarantee and price comparison tool, trusted reviews and ratings from other travelers, convenient reservation management with real-time updates.

•**Pains:** Difficulty finding suitable accommodations within budget, lack of transparency in pricing and availability, uncertainty about the reliability of accommodation, inconvenience of managing multiple reservations and travel plans.

Value Map

•**Gain Creators:** Personalized accommodation recommendations, special deals and discounts for users, instant booking confirmation and seamless payment process, mobile app for on-the-go reservation management.

•**Pain Relievers:** Extensive accommodation options for all budgets, transparent pricing and availability information, verified guest reviews and ratings, centralized reservation management and itinerary planner.

•**Products & Services:** Accommodation search and booking platform, price comparison tool, accommodation reviews and ratings, reservation management dashboard.

5. Competitive Analysis

- The competitive analysis process helps to identify key competitors **and u**nderstand the competitive landscape.
- A process to evaluate your competition to understand their strengths, weaknesses, and strategies.

Steps:

    1. Identify Competitors:
        i. Direct competitors: Offer similar products.
        ii. Indirect competitors: Solve the same problem differently.

    2. Analyze Competitor Strategies:
        i. Pricing, marketing tactics, distribution channels.

    3. Perform SWOT Analysis:
        i. Evaluate Strengths, Weaknesses, Opportunities, and Threats for both your company and competitors.

Outcome:

    ➢ Insights into gaps in the market.
    ➢ Strategies to position your product effectively.

S	W
Strengths	Weaknesses
O	T
Opportunities	Threats

	Strengths	Weaknesses	Market Positioning
Uber Eats	Large user base, wide restaurant network	High commission fees, limited customer support	Market leader
GrubHub	Strong restaurant partnerships, user-friendly interface	Limited geographic coverage, high delivery fees	Strong competitor
DoorDash	Fast delivery, wide restaurant selection	Limited customer support, high commission fees	Growing competitor
Our App	Unique features (e.g., healthy meal options, real-time tracking), competitive pricing	Limited user base, limited restaurant network	New entrant

6. Market Entry Strategy

- A Market Entry Strategy is a plan outlining how to enter a new market or industry with a product or service.
- It involves identifying the most effective way to reach target customers, create awareness, and drive adoption.
- It can be done through determining the best channels, marketing tactics, and partnerships to reach the target audience.

Objectives of Market Entry Strategy
1. Determine the optimal market entry approach
2. Identify the most effective marketing and sales channels
3. Establish a strong brand presence
4. Drive customer acquisition and revenue growth

Steps in Market Entry Strategy

1. **Analyze Market Readiness:** Assess market demand, competition, and regulatory requirements.
2. **Choose Market Entry Mode:** Decide on the most suitable entry mode, such as direct entry, partnerships, or acquisitions.
3. **Develop Marketing and Sales Strategies:** Create plans for branding, advertising, pricing, and sales tactics.
4. **Establish Distribution Channels:** Determine the most effective channels for reaching target customers.
5. **Plan for Customer Support:** Develop strategies for providing customer service and support.

Goal:

➢ Minimize risks associated with market entry.

➢ Maximize initial impact and customer acquisition.

Example: Market Entry Strategy for a New Smartwatch

"FitMax," targeting fitness enthusiasts and health-conscious individuals.

Market Entry Strategy:

1. **Analyze Market Readiness:** Research the smartwatch market, identifying key competitors (e.g., Apple Watch, Fitbit) and trends (e.g., growing demand for health tracking features).
2. **Choose Market Entry Mode**: Decide on a direct entry approach, leveraging online marketing and social media influencers to reach our target audience.
3. **Develop Marketing and Sales Strategies**:
   - Branding: Emphasize FitMax's unique features, such as advanced heart rate monitoring and personalized fitness coaching.
   - Advertising: Launch targeted online ads and sponsor relevant fitness events.
   - Pricing: Set a competitive price point with discounts for bulk purchases.
   - Sales Tactics: Offer in-app purchases for premium features and partner with fitness studios for bundled promotions.
4. **Establish Distribution Channels:** Sell FitMax through our website, Amazon, and select retail partners (e.g., Best Buy, specialty fitness stores).
5. **Plan for Customer Support:** Develop a comprehensive support website, offer phone and email support, and provide regular software updates to ensure a seamless user experience.

- **Example 2: Fashion Retail** – A fashion brand in Delhi launches an e-commerce site first, then opens flagship stores in major cities.
  - ✓ **Action:** Plan a phased launch, starting with online sales before opening physical stores.
- **Example 3: Health Supplements -** A health supplement company in Kerala collaborates with local retailers to reach a wider audience.
  - ✓ **Action:** Partner with local pharmacies and health stores to distribute products.

7. Market Validation

- Market Validation is the process of testing and validating assumptions about your solution, target market, and customers.

- The market validation step assesses the solution in the market to gather feedback and validate assumptions.

- The validation happens through conducting pilot tests, beta launches, or focus groups to collect data and refine the solution.

- It involves gathering feedback from potential customers, industry experts, and partners to refine your solution and business model.

Steps in Market Validation:

1. **Identify Validation Methods:** Choose suitable validation methods, such as surveys, interviews, focus groups, or usability testing.
2. **Recruit Participants:** Recruit participants who match your target customer profile.
3. **Conduct Validation Sessions:** Conduct validation sessions, gathering feedback and insights from participants.
4. **Analyze Feedback:** Analyze feedback, identifying patterns, trends, and areas for improvement.
5. **Refine Solution and Business Model:** Refine your solution and business model based on feedback and insights.

Benefits:

- Reduces the risk of failure.
- Strengthens investor confidence

Example: Market Validation for a New Mobile App - "MedMinder," designed to help patients manage their medications.

Market Validation:
1. **Validation Method:** Online surveys and in-depth interviews with patients, caregivers, and healthcare professionals.
2. **Participants:** 100 patients with chronic conditions, 20 caregivers, and 10 healthcare professionals.
3. **Validation Sessions:** Conducted online surveys and in-depth interviews, gathering feedback on MedMinder's features, usability, and value proposition.
4. **Analysis:** Analyzed feedback, identifying key themes, such as:
   - Patients appreciated the app's medication reminders and dosage tracking features.
   - Caregivers valued the app's ability to monitor patient adherence and receive notifications.
   - Healthcare professionals suggested integrating MedMinder with electronic health records (EHRs) for seamless data exchange.
5. **Refinement:** Refined MedMinder's features, prioritizing integration with EHRs, enhancing caregiver features, and improving user experience.

By conducting Market Validation, we validated our assumptions about customer needs, gathered valuable feedback, and refined MedMinder to better meet the needs of patients, caregivers, and healthcare professionals.

8. Regulatory and Legal Considerations

- Process is to ensure the compliance of regulatory and legal considerations, with relevant laws and regulations.

- Regulatory and Legal Considerations involve identifying and addressing laws, regulations, and industry standards that impact your solution, business model, and operations.

- This can be done by researching and adhering to industry-specific regulations, obtain necessary licenses, and address any legal issues.

Objectives of Regulatory and Legal Considerations

1. Ensure compliance with relevant laws and regulations
2. Identify potential legal and regulatory risks
3. Develop strategies to mitigate risks and ensure compliance
4. Protect intellectual property and proprietary information

Steps in Regulatory and Legal Considerations

1. **Research Relevant Laws and Regulations:** Identify laws, regulations, and industry standards that apply to your solution and business model.
2. **Conduct Risk Assessment:** Assess potential legal and regulatory risks, such as non-compliance, data breaches, or intellectual property infringement.
3. **Develop Compliance Strategies:** Develop strategies to ensure compliance, such as implementing policies, procedures, and training programs.
4. **Protect Intellectual Property:** Protect intellectual property, such as trademarks, copyrights, and patents.

Example: Regulatory and Legal Considerations for a Healthcare Mobile - "MedMinder," designed to help patients manage their medications and track their health data.

Regulatory and Legal Considerations

1. **Research Relevant** Laws and Regulations: Identify laws, such as HIPAA (Health Insurance Portability and Accountability Act), that regulate the handling of protected health information (PHI).

2. **Conduct Risk Assessment:** Assess potential risks, such as data breaches or non-compliance with HIPAA regulations.

3. **Develop Compliance Strategies:** Develop strategies to ensure compliance, such as:
   - Implementing data encryption and secure storage practices
   - Establishing policies and procedures for handling PHI
   - Providing training programs for employees on HIPAA compliance

4. **Protect Intellectual Property:** Protect MedMinder's intellectual property, such as trademarks, copyrights, and patents, to prevent unauthorized use or infringement.

By addressing Regulatory and Legal Considerations, we can ensure that MedMinder complies with relevant laws and regulations, mitigates potential risks, and protects its intellectual property.