



# Web App development

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# Web app's introduction

- Software programs that are accessed through a web browser or a web-based interface
- Hosted on a remote server
- Web applications categories:
  1. **E-commerce applications:**
    - Facilitate online shopping
    - Users can browse products, make purchases, manage their accounts
    - Examples: Amazon, eBay, Shopify, Alibaba, Esty

# Web app's introduction

## 2. Social media platforms:

- Users can connect with others, share content, and communicate
- Examples: Facebook, Twitter, Instagram, LinkedIn, TikTok

## 3. Content management systems (CMS):

- For creating, managing, and publishing digital content on websites
- Examples: WordPress, Drupal, Joomla, Magento, Shopify

## 4. Collaboration tools:

- Teams can collaborate, share documents, communicate in real-time
- Examples: Google Workspace, Microsoft Teams, Trello, Slack, Asana

# Web app's introduction

## 5. Online banking and financial applications:

- Users can perform banking transactions, manage their accounts, and access financial services securely
- Examples: PayPal, banks online banking web apps

## 6. Productivity tools:

- Users can organize their work and increase productivity
- Project management software, to-do lists, note-taking apps
- Examples: Google Workspace, Microsoft Office Online, Evernote, Trello, Asana

# Web app's introduction

## 7. Travel and trip planning applications:

- Functionalities: destination Information, flight and hotel booking, itinerary planning, attractions recommendation, navigation and mapping, trip sharing and social networking
- Examples: Tripadvisor, Expedia, Kayak, Skyscanner, Rome2rio, Roadtrippers

# Web app's Market and profitability

Factors influencing profitability of web applications:

## 1. Monetization Strategy:

Subscription fees, advertising, in-app purchases, licensing, freemium models (basic version free, additional features/enhanced functionality paid), data monetization

## 2. User Acquisition and Retention:

- Attract users: marketing strategies, user acquisition campaigns, etc.
- Retaining users: continuous engagement, providing value, address needs

# Web app's Market and profitability

Factors influencing profitability of web applications:

## 3. Pricing and Value Proposition:

- Pricing aligned with offered value
- Understanding the target market, competitive pricing

## 4. User Engagement and Usage Metrics:

- Active and engaged users => more revenue
- Monitoring users: metrics active users, session duration, click-through rates, conversion rates (% of action completion) ex: purchase, signup newsletter

# Web app's Market and profitability

**Factors influencing profitability of web applications:**

## 5. Operational Costs and Efficiency:

- Optimizing development and maintenance, hosting and infrastructure, customer support, and ongoing updates.

## 6. Competition and Differentiation:

To compete and attract users => Identifying and analyzing competitors' strategies, differentiating the web application through unique features, user experience, or targeting a specific niche

# Web app's Market and profitability

**Factors influencing profitability of web applications:**

## 7. Market Demand and Trends:

Identifying emerging trends, adapting to evolving user needs, and staying ahead of the competition => increased profit

## 8. User Feedback and Iterative Improvement:

User satisfaction & retention => Addressing user pain points, enhancing features based on feedback, delivering an exceptional user experience

# Web app's Market and profitability

## Hypothetical profit calculation for medium-size web app

User base: 50,000 subscribers

Average monthly subscription fee: \$20

Annual operating expenses: \$500,000

Profit = (Revenue - Expenses)

Revenue = (Number of Subscribers \* Monthly Subscription Fee \* 12)

Revenue = (50,000 \* \$20 \* 12) = \$12,000,000

Profit = (\$12,000,000 - \$500,000) = \$11,500,000

# Web app's Market and profitability

Build app, Operate, Sell:

Buy and sell online businesses:

<https://empireflippers.com>

<https://flippa.com>

# Project-based Business plan components

1- Executive Summary

2- Project Description

3- Market Analysis

4- SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis

5- Project Objectives

6- Marketing and Sales Strategy

7- Project Timeline

8- Financial Projections

9- Risk Mitigation Plan

10- Conclusion

\* See APPENDIX 1 for more detail

# Case study

## Sharedestinations.com

### ABOUT

Share Destinations is a web application that enables users share experience by pinning their Instagram posts on the map.

### WHY SHOULD USERS JOIN?

- Increase Instagram followers
- Advertise business (website, phone, address)
- Participate in contests and be featured
- Contribute to enriching the maps

# Case study

## Main functionalities

Functionality	Plugin
Maps + pin locations option for registered users	<a href="#">Open User Map (Premium)</a>
Membership + user management	<a href="#">WP User Manager</a>
eCommerce management	<a href="#">WooCommerce</a>
Private Messaging system	<a href="#">Front End PM PRO</a>
Front end page builder	<a href="#">Elementor</a>
Creating front end knowledge base + FAQ	<a href="#">BetterDocs</a>
Pdf invoicing	<a href="#">PDF Invoices &amp; Packing Slips for WooCommerce</a>
Adding custom fields	<a href="#">Advanced Custom Fields</a>

# Case study

## Main customizations by coding

- Posts list page
- Posts credit report section
- Conditional fields + submit button in “Add a new location” window
- Handle post deletion
- Auto Complete all WooCommerce orders
- Auto update the order renewal order status to "completed"
- Update user role after purchase/cancel subscription
- Preventing double subscription

# Case study

## Main remaining part

\* Terms and Conditions

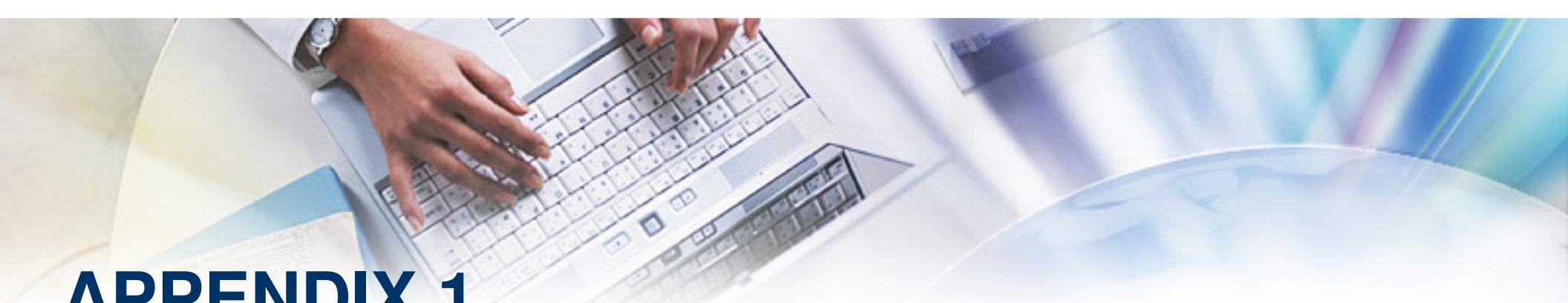
Some examples of terms and conditions:

<https://mapify.travel/terms>

<https://unsplash.com/terms>

<https://help.instagram.com/581066165581870/>

[https://terms.yelp.com/tos/en\\_us/20200101\\_en\\_us/](https://terms.yelp.com/tos/en_us/20200101_en_us/)



# **APPENDIX 1**

## **Project-based Business plan components**

### **1- Executive Summary**

Provide a concise overview of the project, including its purpose, goals, and potential benefits. Summarize the key points of the business plan.

### **2- Project Description**

Describe your web application project in detail, highlighting its features, functionalities, and target audience. Explain how it addresses a specific need in the market and how it aligns with the company's overall goals and strategies.



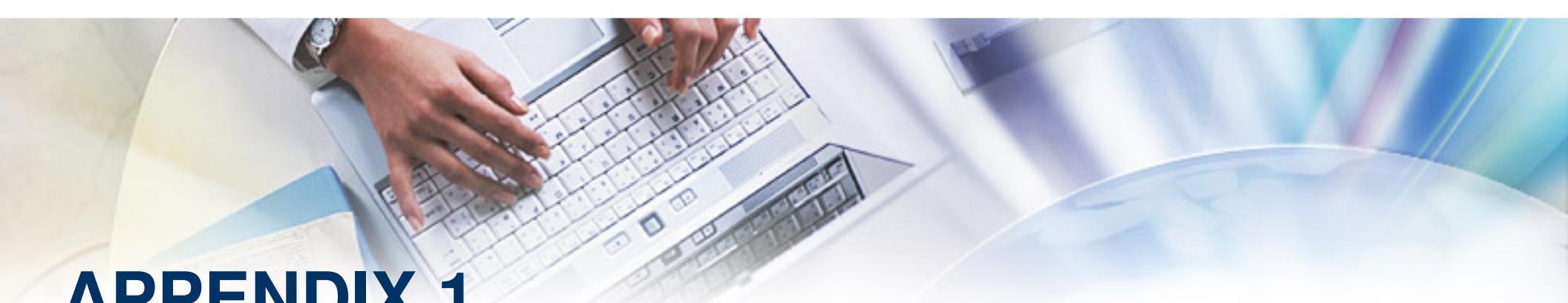
# **APPENDIX 1**

## **Project-based Business plan components**

### **2- Project Description (continued)**

The technical details of the project are typically included in the "Project Description" element:

- (1) Architecture: Describe the overall system architecture of the web application, including the client-side and server-side components, APIs, and any integrations with external systems or services.



# **APPENDIX 1**

## **Project-based Business plan components**

### **2- Project Description (continued)**

(2) Functionality: Explain the key features and functionalities of the web application. Provide a detailed overview of what the application does, how it operates, and what problems it solves for users.

(3) User Interface (UI) and User Experience (UX): Discuss the design principles and user interface components of the application. Explain how the UI/UX has been designed to enhance usability, engagement, and overall user satisfaction.

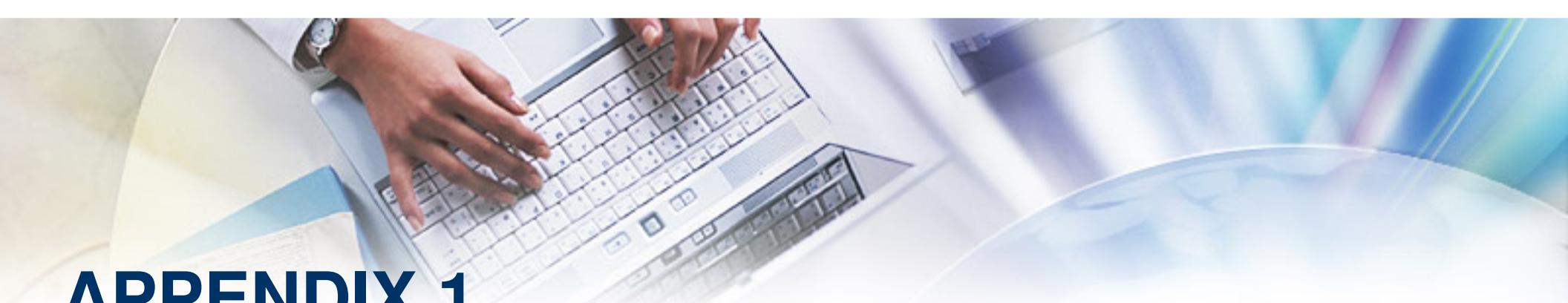


# **APPENDIX 1**

## **Project-based Business plan components**

### **2- Project Description (continued)**

(4) Technical Requirements: Outline the technical requirements for running the web application, including hardware specifications, operating systems, browsers, and other dependencies. Mention any specific software or tools required for development or deployment.

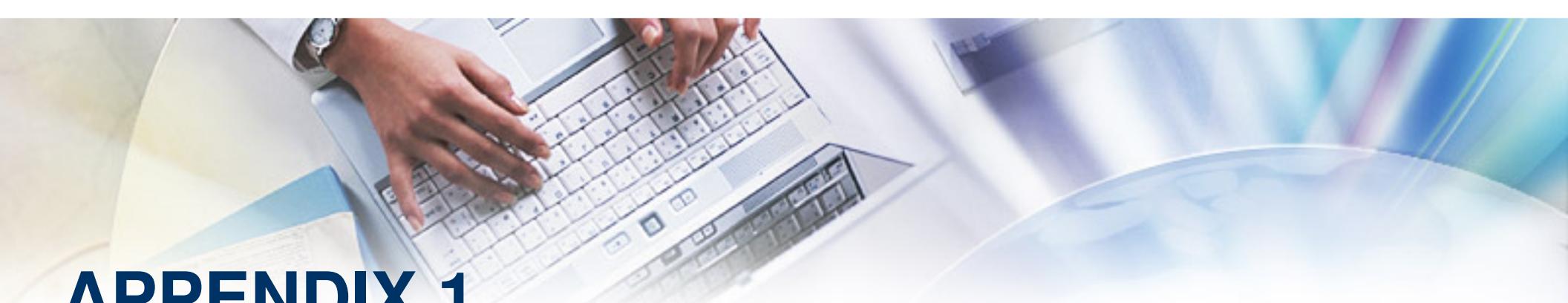


# **APPENDIX 1**

## **Project-based Business plan components**

### **2- Project Description (continued)**

(5) Development Approach: Briefly explain the development approach or methodology you follow during the project. This could include Agile, Scrum, Waterfall, or any other relevant approach, along with a summary of the development process and milestones.

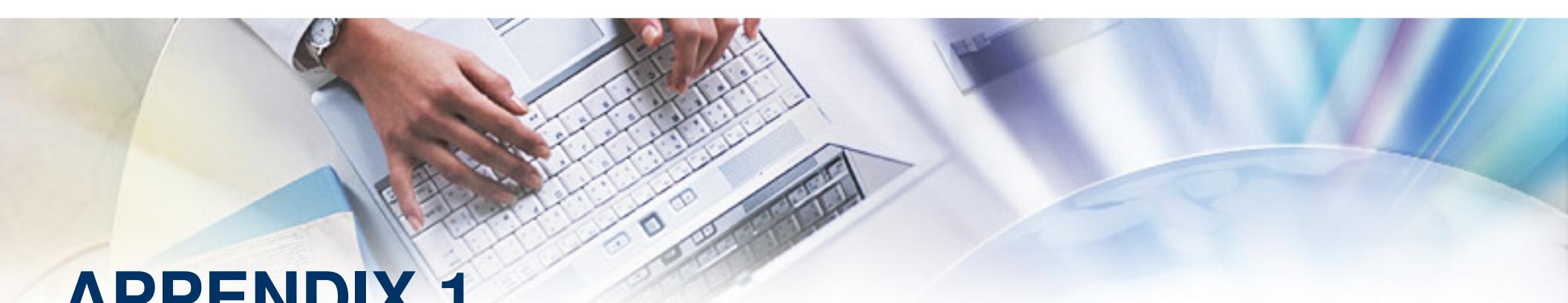


# **APPENDIX 1**

## **Project-based Business plan components**

### **2- Project Description (continued)**

(6) Data Management: Describe how data is managed within the web application. Discuss the database systems used, data storage and retrieval mechanisms, data security measures, and any data privacy considerations.



# **APPENDIX 1**

## **Project-based Business plan components**

### **2- Project Description (continued)**

(7) Testing and Quality Assurance: Highlight the testing strategies and quality assurance processes employed during the development of the web application. Mention any specific testing frameworks or methodologies used to ensure a robust and bug-free application.

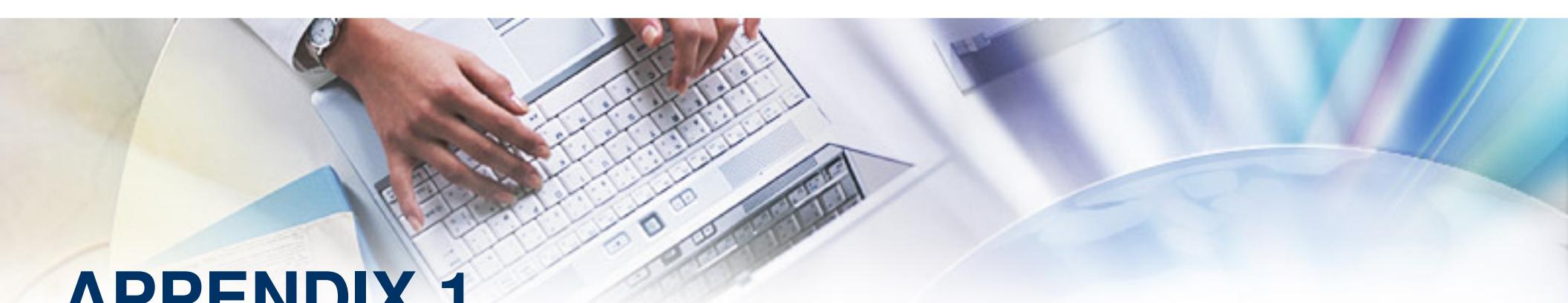


# **APPENDIX 1**

## **Project-based Business plan components**

### **3- Market Analysis:**

Conduct thorough research to understand the target market and its potential. Identify your competitors, analyze market trends, and evaluate the demand for web applications. Provide data and insights that support the viability and profitability of the project.

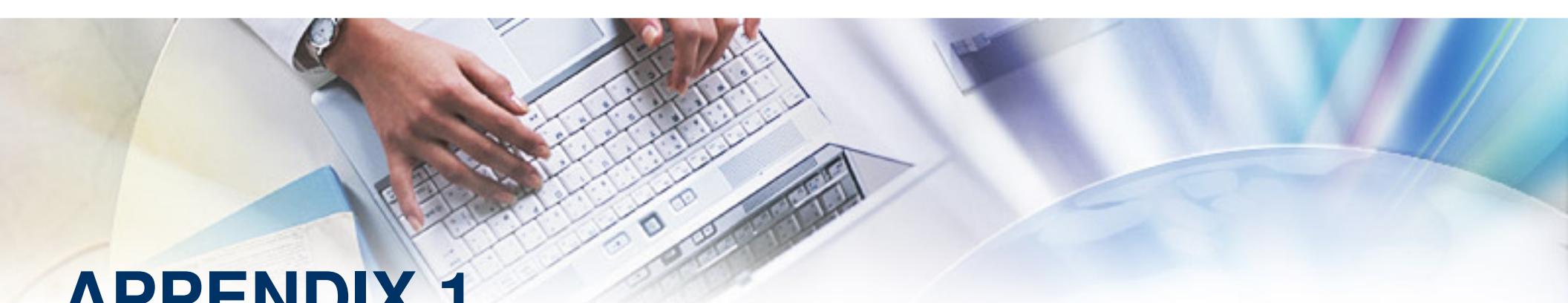


# **APPENDIX 1**

## **Project-based Business plan components**

### **4- SWOT Analysis:**

Conduct a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis specific to your web application project. Identify the project's strengths, such as unique features or expertise, as well as potential weaknesses and challenges. Highlight the opportunities that exist in the market and address any potential threats or risks.

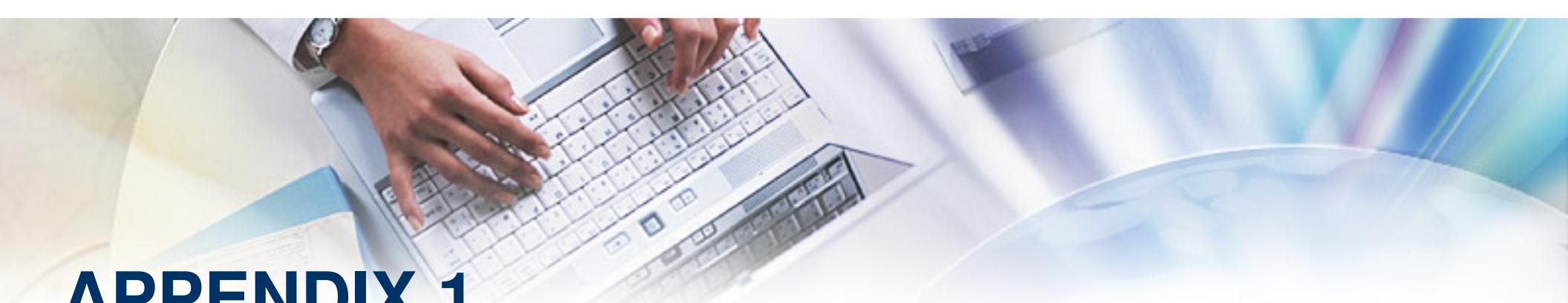


# **APPENDIX 1**

## **Project-based Business plan components**

### **5- Project Objectives:**

Clearly define the objectives and milestones of the project. Outline what you aim to achieve in terms of product development, market penetration, user acquisition, and revenue generation. Ensure that your objectives are specific, measurable, attainable, relevant, and time-bound (SMART).



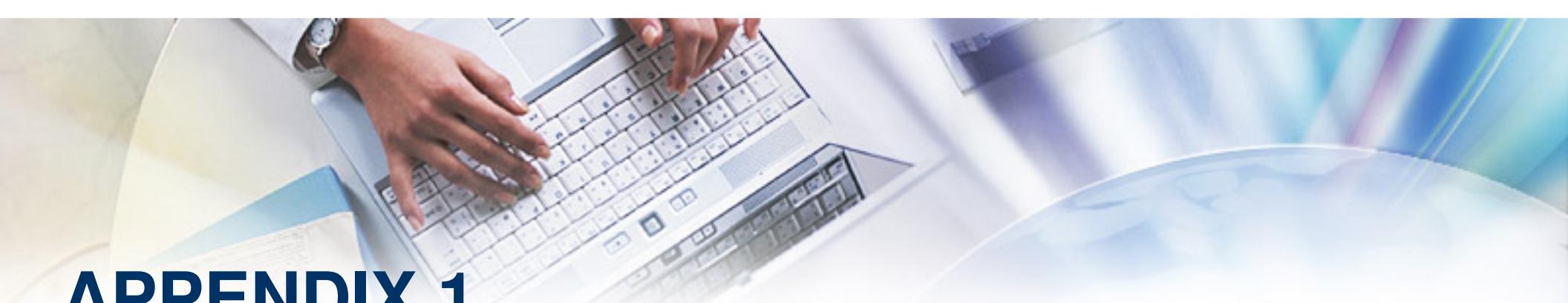
# **APPENDIX 1**

## **Project-based Business plan components**

### **6- Marketing and Sales Strategy:**

Present your marketing and sales approach for the web application.

Outline how you plan to promote and advertise the product to reach your target audience. Discuss pricing strategies, distribution channels, and any partnerships or collaborations that can enhance your reach.

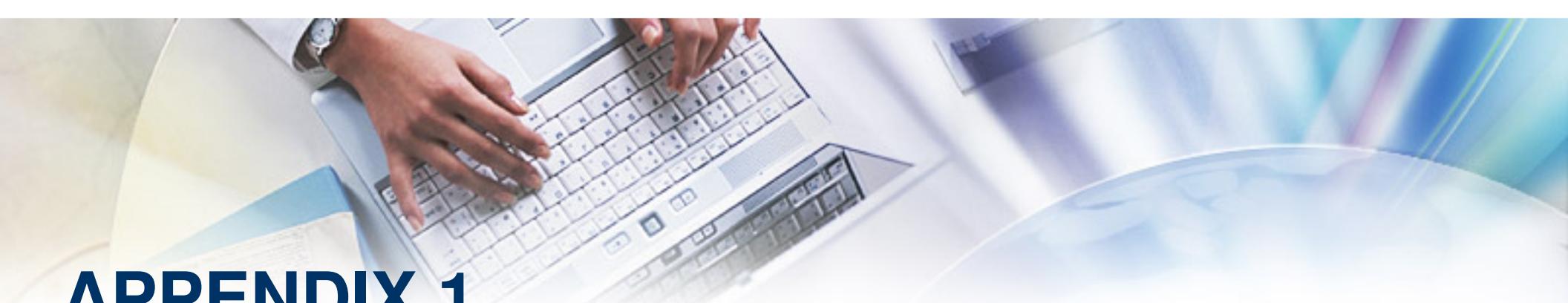


# **APPENDIX 1**

## **Project-based Business plan components**

### **7- Project Timeline:**

Create a detailed timeline or Gantt chart that illustrates the various stages of the project, including development, testing, launch, and post-launch activities. Provide estimated timeframes for each phase to give a clear understanding of the project's timeline and dependencies.

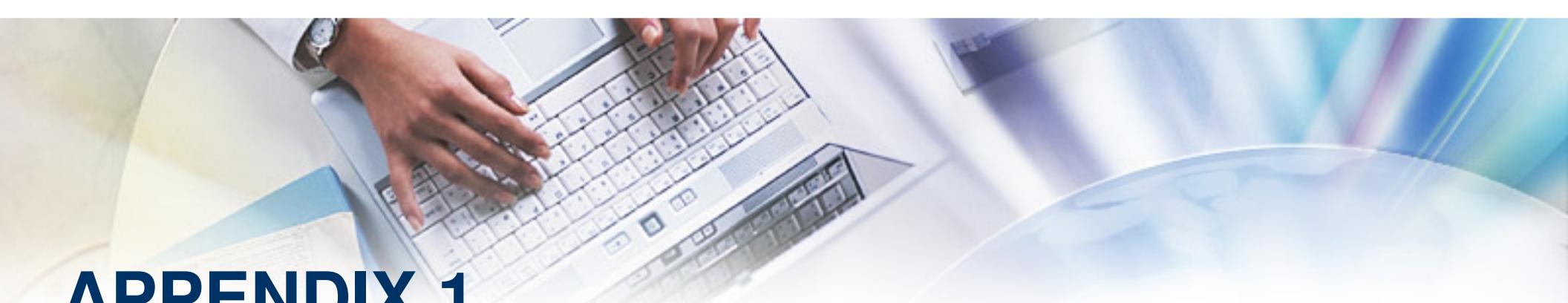


# **APPENDIX 1**

## **Project-based Business plan components**

### **8- Financial Projections:**

Present the financial aspects of the project, including costs, revenue projections, and potential return on investment (ROI). Include details on the initial investment required, ongoing operational expenses, and revenue sources such as licensing fees, subscriptions, or in-app purchases. Use conservative estimates and clearly explain your assumptions.

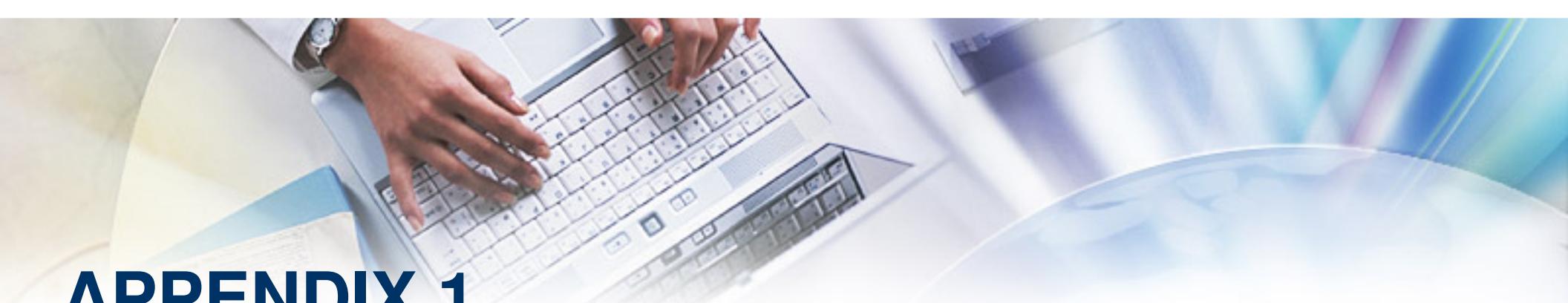


# **APPENDIX 1**

## **Project-based Business plan components**

### **9- Risk Mitigation Plan:**

Identify potential risks or challenges that could impact the project's success and outline strategies to mitigate them. Address issues such as technical hurdles, market competition, or changes in industry regulations. This demonstrates that you have considered the potential obstacles and have plans in place to minimize their impact.



# **APPENDIX 1**

## **Project-based Business plan components**

### **10- Conclusion:**

Summarize the key points of the project-based business plan and emphasize the potential value and benefits it can bring to the company.