Requirements Document

Project Goal:  
Develop a centralized, secure, and efficient travel agency management system to unify commission tracking, booking management, supplier coordination, and reporting — replacing the current decentralized paper/Excel workflow.

# 1. Current Environment and Challenges

- Data is currently managed individually by each agent using Excel, Word, and paper records; no central repository.  
- The manager/owner has overarching access, but there is no defined data governance or access control policy.  
- Data loss, and inconsistent formats are frequent.  
- Agents rely on supplier communications and manual notes (e.g., sticky notes).  
- Reporting is ad hoc and varies by agent; no standardized reports or schedule.  
- Current process makes commission reconciliation and customer follow-up inefficient.

# 2. Data Management & Governance

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| Requirement | Description |
| Data Management | Manager/owner currently manages data. The new system will centralize all agent, customer, and supplier data. |
| Access Control | Implement role-based access: manager/owner full access; agents read/write for their own data only. |
| Data Ownership | Company owns all data; customer data is never shared externally. |
| Data Migration | Existing data (Excel, Word, paper) will be cleaned and imported. Manager and developer will share responsibility for validation. |
| Data Integrity | Require mandatory fields (first name, last name, payment info). Optional fields may include marketing preferences and demographics. |
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| Data Validation | Automatic validation for format, duplicates, and completeness. |
| Non-Deletable Data | Financial records (bookings, commissions, customer transactions) must be stored for 7 years at minimum to adhere to future audits – invoices, contracts, and other transaction records. |
| Backup & Recovery | Scheduled daily backups, stored securely in the cloud. Disaster recovery plan required. |
| Data Retention | Retain at least 7 years of booking and client history. |

# 3. Security & Privacy

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| Requirement | Description |
| Customer Privacy | Consent must be explicit; customer data is internal-use only. |
| Authentication | Encrypted logins with multi-role authentication (agent, manager, admin). |
| Access Policy | Optionally limit logins to office devices; configurable for remote access. |
| Security Measures | Cloud-hosted with encryption at rest and in transit. |
| Downtime Tolerance | Minimal — ideally less than 2 hours per maintenance window. |
| Disaster Response | Must define procedure for recovery if system or data becomes corrupted. |

# 4. Functional Requirements

Customer Management:  
- Capture personal details: name, contact, address, payment details.  
- Track travel history, preferences, and demographics (age, location, children) for marketing.  
- Enable search by name, booking, or customer number.  
- Show a summary view on search: booking history, payment status, linked supplier(s), and agent.  
- Allow linking one customer to multiple bookings and suppliers (many-to-many relationships).  
  
Supplier Management:  
- Maintain supplier records with multiple contacts and locations.  
- Store historical supplier data, as commission policies or rates may change.  
- Support recycled booking numbers by using an extended unique key (e.g., booking ID + supplier ID + date).  
- Allow tracking of supplier-specific policies (refunds, fee timing, commissions, taxes).  
  
Booking & Product Management:  
- Link bookings to customer and supplier.  
- Support bundled products (e.g., flight + hotel + car rental).  
- Store fees, taxes, commissions, and refund policy for each booking.  
- Record who applied a booking fee, the amount, customer, and reason.  
- Permit NULL fields for products/suppliers when data is incomplete.  
  
Commission Tracking:  
- Track expected vs actual commission amounts, dates, and related services.  
- Identify missing or incorrect commissions automatically.  
- Allow status tracking (pending, paid, disputed).  
- Enable manager to view all commissions; agents see only their own.  
- Store historical commission data for auditing and performance analysis.  
  
Performance & Analytics:  
- Generate performance metrics by agent, product, and supplier.  
- Capture total sales, commissions, and booking count per agent (monthly/quarterly).  
- Highlight top-performing agents and high-commission products.  
- Provide insights for marketing (demographics, returning clients, top destinations).

# 5. Reporting

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| Requirement | Description |
| Report Types | Commission reports, agent performance, sales/revenue, supplier reconciliation, and marketing demographics. |
| Frequency | Monthly by default; configurable for automation. |
| Reviewers | Manager/owner reviews; agents can generate personal summaries. |
| Detail Level | Support both summary and detailed formats. |
| Export Options | Reports exportable to Excel and/or PDF. |
| Access Control | Role-based permissions for creating/modifying reports. |
| Compliance Reports | Include GST, tax, and commission reconciliation reports. |

# 6. Automation & Integration

- Automate commission calculation, invoice generation, and client/supplier reminders.  
- Validate and autofill repetitive fields where possible.  
- Schedule automatic report generation and delivery to manager email.  
- Prepare system for future API integrations (e.g., online booking, supplier updates).  
- Allow optional client-facing portal for self-service or viewing itineraries.

# 7. Infrastructure & Deployment

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| Requirement | Description |
| Hosting Preference | Cloud-based for centralized access and remote agent connectivity. |
| User Load | 5–6 concurrent users (expandable). |
| Backup Frequency | Daily automatic backups to cloud. |
| System Maintenance | Regular updates and patching; tolerance for brief downtime. |
| Scalability | Must support expansion to a second agency and web integration. |

# 8. User Experience & Training

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| Requirement | Description |
| Ease of Use | Interface should be simple for agents accustomed to Excel. |
| Help Features | Built-in tooltips, step-by-step onboarding, and guided tutorials. |
| Training Materials | Provide documentation and live demonstration sessions. |
| Onboarding | Manager responsible for onboarding new agents using built-in guides. |
| Pilot Phase | Test system with one agent before full rollout. |
| Learning Curve | Expected to be minimal with proper guidance. |

# 9. Project Management & Delivery

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| Requirement | Description |
| Budget | $500,000 (includes hardware for remote work). |
| Blueprint Deadline | Mid-November. |
| Training/Go-Live Deadline | Mid-April. |
| Maintenance | Ongoing support and system updates post-launch. |
| Scope Prioritization | Must-have: centralized storage, commission tracking, mandatory data fields, data import. Nice-to-have: sorting/filtering, automated reporting. |
| Communication Plan | Coordinated between frontend, backend, and database teams. |
| Future Expansion | Open a new agency and integrate online booking. |
| Project Success Criteria | Reduction in data errors, faster reporting, improved visibility, and agent adoption. |

# 10. Risks and Concerns

- Agent resistance to new technology (especially older staff).  
- Data migration errors during import.  
- Maintaining confidentiality and preventing unauthorized access.  
- Potential downtime during transition or maintenance.  
- Ensuring accurate mapping of legacy (Excel/paper) data to new schema.

# 11. Long-Term Goals

- Establish secure cloud-based infrastructure for multi-branch operations.  
- Enable future customer portals and API-based integrations.  
- Support scalable performance analytics across agencies.  
- Strengthen data security, business continuity, and marketing intelligence.