**CS691 - Computer Science, Spring 2021**

**Project Initiation Document**

Project: Reviewer

Project Manager: Sanjeev Kumar Srinivasan Khannan

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Approvals

This document requires the following approvals:

| Name | Role | Signature | Date | Version |
| --- | --- | --- | --- | --- |
| Prof. Yuri Chernak | Approver |  | 02/05/2023 | version 2 |

Distribution

This document has been distributed to:

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| Sai Kiran | DBA |  |  |

# Document Purpose(Assigned to Bisheng)

This document has been created to record the basic information needed to manage the project. The document will describe the scope, objectives, tasks, roles and responsibilities, costs, and deliverables related to the “Reviewer” website.

The PID dictates the following critical aspects:

* Details of the approach to be adopted for the implementation of the Reviewer Web Application Project.
* Details of the roles and responsibilities.
* Description of functions and activities.
* Explanation of the processes.
* Details of the communication plan between team members and with the stakeholders.
* Quality records, risks, project controls and exceptions.

The sections of this document are dynamic and could potentially change over the lifetime of the project. The changes will be recorded in the PID document. The PID will be referred each time when a major decision is taken about the project. Also, the PID document will be used at the end of the project to measure whether the project was managed successfully or not and whether all deliverables were produced in a timely manner or not.

# Background to the Proposed Work(Assigned to Bisheng)

Most users often need to consider spending options in their daily lives, including restaurants, scenic, travel and ticketing for different entertainment venues. When users need to consider which restaurants to visit, where to go on the weekend, and how to purchase tickets, Reviewer will provide recommendations and information that will save time and improve the efficiency of decision making. New merchants need to consider how to promote their restaurants to get more consumers. When merchants need to promote and advertise their stores, they can add store information to Reviewer to attract users and reviews.

The purpose of the project is to provide a local life information and trading platform, an independent third-party consumer review website. It not only provides users with information on merchants, consumer reviews and consumer offer, but also provides restaurant booking, booking tickets, merchant information and other transaction services.

The application relies on the content output of some users to provide advice and guidance to other users, forming a good interactive community atmosphere. In addition, users can find interested merchants according to the keywords of categories, and enter the details page to browse the address of merchants, per capita consumption, various ratings, group purchase offers and user reviews to understand the situation of merchants and make consumption decisions, realizing the linkage between online and offline.

# Vision(Assigned to Nayan)

Our goal is to establish ourselves as the top platform for leisure activities by giving customers easy access to dining and visiting tourist places, options, and guidance. Our objective is to provide a comprehensive solution that helps customers to discover new locations, save money, and maximize their free time.

# Project Objectives(Assigned to Nayan)

1. To develop a user-friendly platform that provides restaurant reviews, scenic ticket recommendations, shopping suggestions, tourist attraction information, and events information.
2. To build a customer support team to help users find the best places and to assist with any technical issues.
3. To create a marketing team to deliver the application to the maximum number of users, gather feedback, and provide new updates and features.
4. To provide value to users by helping them solve the problem of choosing a restaurant or scenic spot.
5. To generate revenue through subscriptions, advertising sales, and sponsorships.
6. To use technology to create a fast and efficient system that can be used by both internal and external users.
7. Improve the platform in the future by integrating flight, hotel, and event reservation features to save time and money for customers.

# Project Scope (Assigned to Prasad)

Our website is offering a platform which acts as a travel guide for users to find best places to travel suitable accordingly in the required budget, it also provides a channel to purchase tickets for any new scenic in a new city using

* A search engine for discovering restaurants, places and hotels based on location, rating, category, and keywords.
* A database of merchants and their information, including reviews, ratings, offers, and promotions.
* A booking system for restaurant tables and entertainment tickets.
* A rating and review system for users to provide feedback on their experiences with merchants.
* A merchant management system for adding and updating information about their businesses.
* A payment processing system for booking and transaction services.
* An AI-based recommendation system that uses machine learning to provide personalized suggestions to users based on their history and preferences.

For the team, we will

* To Design and develop a platform that enables users to search for local merchants and make informed decisions based on their ratings, reviews, and offers.
* To implement a database management system that allows for the efficient storage and retrieval of user data, merchant information, and review data.
* Implementation of search engine optimization techniques to improve the visibility and accessibility of the platform.
* Development of a recommendation engine that utilizes machine learning algorithms to provide personalized recommendations to users based on their preferences and history.
* Implementation of user authentication and security measures to ensure the confidentiality and privacy of user data.
* Focusing on providing an intuitive and user-friendly interface that enhances the user experience and allows users to easily find the information they need.
* Integration with external systems, such as payment gateways, to facilitate transactions and improve the overall functionality of the platform.

# Business Case (Assigned to Bisheng, Kaushal, Sanjeev, Prasad)

This section will justify the project so the board can then decide if it gets to go ahead. Benefits should be quantified and balanced against the cost and timing being estimated during the creation of the project plan.

Large projects may summarize and include a link to the full business case.

*Please insert the approved Business Case document here*

Business case information can be structured by completing the table below.

| **Application Name** | Reviewer |
| --- | --- |
| **Type of business model** | Freemium and advertisement  The reviewer will have a Freemium model, where users can review feedback on the places and find some attractions nearby them. customers can use this software to apply deals and advertise in applications for users to attract towards them. |
| **Target audience of external users**  **(Customer Segments)** | Mainly for the leisure activities and most common use by youngsters, strong ability to accept new things, fast acceptance, with new trendy consumer ideas and the pursuit of quality of life. |
| **Groups of internal stakeholders, business users** | *Indicate who will be using the system in your organization, i.e., internal users.*  **Do we need a product development group?**  Yes we need a developer team to work on backend and frontend.  **Do we need a sales group?**  No, we are not going to sell the application but in the future we are planning to sell concert and event tickets after having more users.  **Do we need a finance group (accounts payable, receivable)?**  At this moment NO, Later in the updated version we are planning to get a subscription version for more discounts for events, restaurants, hotels and so on…  **Do we need a customer support team?**  Yes, we need a customer support team to help people to find better places, even while helping with bad internet issues.  **Do we need an advertising management group?**  Yes we need a marketing team to deliver this application to a maximum number of citizens, so after feedback we can provide new updates and help people to stay connected with us and we will try to add maximum features to deliver users. |
| **Value propositions** | **What value do we deliver to the customer?**  We provide users with the convenience of daily consumption choices, as long as they are reflected in daily consumption choices and consumption advice. They will get help in their leisure time and can easily explore new places without hesitating. They will save money to explore local places in the cities.  **Which one of our customer’s problems are we helping to solve?**  When a user is choosing a restaurant or scenic spot, our product provides suggestions for that user through the reviews of other users, and might get a discount coupon if available from any source of media.  If people are traveling to a new city then they will get to know new tourist attractions nearby before leaving that place and also it will let users know that this place is suitable to visit according to weather.  **What bundles of products and services are we offering to each Customer Segment?**  Restaurant reviews, Scenic tickets, shopping recommendations, tourist places, clubs, and events  **Which customer needs are we satisfying?**  We provide a convenient channel to meet users' questions such as "what to eat today" and "where to go on the weekend". |
| **Key resources** | **What Key Resources do our Value Propositions require?**  Adequate user base and merchant base  **Our Distribution Channels?**  In a dedicated website as Web-Application  **Customer Relationships?**  None  **Revenue Streams?**  Merchant sponsored, user paid commission per order |
| **How the system is used** | **What are the main system use scenarios for the External Customers?**   * When users don't know which restaurant or Scenic to choose when they travel, they can use our product to check the rating of the merchant and thus guide them to spend money. * Credit/Debit: When a user wishes to purchase tickets for a different Scenic in a new city, our product facilitates this by providing a channel to purchase tickets by entering/saving the card details.   **What are the main system use scenarios for the Internal Users?**   * Log in: admin, customer and user have to login for post, review, feedback, and purchase ticket. * Data Management: Internal users will be responsible for managing their favorites, preferences, posts, and other account information through data, while admin can do anything whatever they want and while customers can upload some deals, advertisements and marketing options. * Customer Support: Internal users will be provided with technical assistance to deal with issues that may be involved in the use of external users, including some common issues such as refunds, cancellation of reservations, etc. * Marketing: Internal users are responsible for promoting the software and gaining more potential users through media, advertising and other forms of promotion. * Software development and maintenance: Internal users are responsible for testing the software, finding bugs that can occur in different use cases, providing different suggestions, and improving performance based on the experience. |
| **External Interfaces (data feeds)** | **Does the system exchange data with external systems? For example, banks, delivery contractors, restaurants, etc.**  Yes, the system could exchange data with external systems such as banks for payment processing, delivery contractors for order fulfillment, and restaurants for updating menus and other information. The exchange of data helps to ensure accurate and up-to-date information for users and helps to streamline the booking and ordering process. |
| **Revenue generation, Revenue streams** | Such as renting, leasing, licensing, brokerage fees, advertising sales, etc.  **Advertising Sales, Sponsors fee.** |
| **Key Partners/Suppliers**  **(Stakeholders)** | ***Stakeholder – the party who is involved in or affected by your project***  Development team, Management executives, Merchants, Advertisers and Banking sectors |
| **Expected Benefits to the Customer** | They will get to know the cheapest and the best place, even they will track their visit lifelong into account, In the updated version of the app after successfully there will provide other sources like booking flights, hotels, reservations, and tickets so there will maximum saving of internet and will try to make the application that works with low speed of the internet to it will save the life of birds and sensitive human/animal by low radiation frequency. |
| **Known Prototypes** | Yelp, Groupon |
| **Front-end Technology** | * HTML * CSS * JavaScript * Bootstrap |
| **Back-end, Database Technology** | * Java * Spring MVC for Java * Maven (Build Tool) * Python * Flask API for Python * Firebase / PostgreSQL * Machine Learning Frameworks (Tensorflow, Scikit-Learn) |

# Assumptions (Assigned to Sai Kiran)

This section will include assumptions made before the requirements specifications have been documented. It may look something like this:

| Assumption | Validated by | Status | Comments |
| --- | --- | --- | --- |
| Project Meeting | Manager | Completed | Manager will schedule meetings every week |
| Project Resources | QA Analyst | In Process | Analyst will check all the  devices and resources every week |
| Team Work | Manager | In Process | Manager will keep details of all Modules and will assign ‘Single or Team’ work on specific modules |
| Updating Required Skill | Business Analyst | In Process | Business Analyst will provide specific Required Skills |

# Constraints(Assigned to Vignan)

The things that need to be taken into consideration during the delivery of this project are

* Individual obligations and duties:Individual obligations and duties explain the duties and expectations that persons within a particular community or system have toward one another and themselves.
* Information sharing and cooperation:Cooperation and information sharing have several advantages, including better decision-making, increased effectiveness and efficiency, lower costs, and more innovation.
* Conflict settlement and problem-solving:To resolve conflicts, team members should engage in open and respectful communication and problem solving in a group project requires a systematic approach to identify the root cause of the problem, generate potential solutions, and evaluate the best course of action.
* Remarks on a performance review:The performance evaluation and comments can have a big impact on someone's career growth, thus they should be handled professionally and with an emphasis on giving constructive criticism
* Enhancing the health and wellness of the team members on a personal and professional level and Effective communication and regular meetings will help to review the project.

# Risk Management Strategy(Assigned to Vignan)

Will complete this deliverable in the next week

This section will include the risk mitigation and management techniques and strategies that will be applied to the project. This may be presented in the following format:

| Risk | Probability | Impact | Mitigation Method |
| --- | --- | --- | --- |
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Alongside this, there should be a summary of the most significant risks threatening the project.

*Please insert here a Risk Management Process chart from W3 lecture, Slide 46 and explain the process.*

# Deliverables (Assigned to Sai Kiran)

This section should include the main deliverables and outcomes the project is expected to achieve. It may be presented in the following format (see the project delivery schedule on Blackboard):

| No | Artifact Name | Responsible Party |
| --- | --- | --- |
| 1 | Project Plan | PM |
| 2 | PID document | PM |
| 3 | Application's Home Page | Lead Dev |
| 4 | BRM Diagram | Product Owner |
| 5 | Context Diagram | Lead BA |
| 6 | Architecture Diagrams | Lead Dev/DBA |
| 7 | Business Requirements | Product Owner |
| 8 | Functional Decomposition Diagram (FDD),  Fishbone Diagram | Lead BA |
| 9 | RCT (includes functional decomposition, supplementary reqs)  Use-Case Diagram (UML) | Lead BA |
| 10 | Data-flow Diagram (logical)  Functional Requirements (user  stories | Lead BA |
| 11 | Class Diagram (UML)  Sequence Diagram (UML) | Lead Dev |
| 12 | ER Diagrams (conceptual, logical) | DBA |
| 13 | Database Table Specification | DBA |
| 14 | Establish Git projects  Source Code sample (part of Demo) +  Git repository slides (images) | Lead Dev |
| 15 | Test Plan document | Lead QA |
| 16 | Test design, test cases (in Excel  template | Lead QA |
| 17 | Application Demo | All |
| 18 | Presentation PowerPoint | PM |

# Stakeholders (Assigned to Sanjeev)

*Project Stakeholder – the party who is involved in or affected by your project.*

This section will include a list of all known stakeholders and their interests in the project. It may be presented in the following format:

*Include Internal stakeholders (your company business users) and External stakeholders (partners, banks, credit card vendors, etc.). Note, your project team members are not considered stakeholders.*

| Stakeholder | Interest |
| --- | --- |
| Management and Executives | Maximizing profits and revenue. Building and maintaining a positive company image and reputation. |
| Merchants | Merchants want to reach a larger audience through the platform to increase their visibility and attract more customers. |
| Advertisers | Reaching a large and relevant audience to promote their products/services. |
| Banking sectors | Process secure transactions and to receive a fee or a commission from the transactions made through their payment gateway. |

# Project Team (Assigned to Sanjeev)

Will complete this deliverable in the next week

This section will include:

* Project governance – with details on escalation
* Organization – demonstrating reporting lines within the project team (usually in the format of an organization chart)
* Roles and responsibilities, include a RACI table

# Project Plan (Assigned to Kaushal)

Project Plan Table will be completed in the next week

This section will include a summary of the project plan, including a schedule of activities and resource requirements. Indicate, the team will follow the Agile development methodology.

Please note, the project plan and schedule are produced for this semester only and will be used for tracking progress during this semester.

For this semester we are using the waterfall model comprising several phases. We are working together to fulfill all requirements of the project. Some work is done independently within a team, while others are done collaboratively. Therefore, we will probably finish all documentation projects this semester, including the business case, PID, planning design, business problem, requirements, and IT rules and regulations. We will be working on the project's design and the main page and login page next two weeks in preparation for the following semester. Even in the following semester, we will put the documentation into practical work by working on the backend and adding as many features as possible, such as hotel recommendations and suggestions for nearby attractions and tourist attractions. The project plan includes 5 milestones which are the initial project plan, requirements, design, coding, and testing.

# Project Controls (Assigned to Vaibhav)

The official language of the project will be English. Official meetings will be held in English. All project documentation and presentations will also be written in English.

Official meetings will be held at least once a week, either in person or through remote video conferencing, in order to discuss progress, delegate tasks, and actively collaborate on project assets. Methods of communication include Zoom for video conferencing, text by phone among team members, and Slack for team and professor communication.

Weekly meeting minutes will be maintained by the project manager which will also include the progress of the project phases. Project Manager will also keep a track of the deadlines and ensure that everyone plays their role accurately.

WhatsApp and Slack will be used to update all the team members with the important information by the manager and for sharing all the files.

Project documents will be kept in Google Drive for easy access and editing.

# Communication Plan (Assigned to Vaibhav)

This section will include how stakeholders will be communicated with during the project and how frequently. This should include a note on where to find the Communications Plan if you have one.

| **Stakeholder** | **Frequency** | **Type** | **Purpose** |
| --- | --- | --- | --- |
| Project Team | Daily | Email, Zoom Meeting, Slack, WhatsApp, Phone call | To maintain progress, discuss new requirements. |
| Management and Executives | At Key Stage | Phone call, Personal meeting, Email, Skype | Building and maintaining a positive company image and reputation. |
| Merchants | At Key Stage | Phone call, Personal meeting, Email, Skype | How to increase the audience's visibility and attract more customers. |
| Advertisers | At Key Stage | Phone call, Personal meeting, Email, Skype | To promote their products and services. |
| Banking Sectors | At Key Stage | Phone call, Personal meeting, Email, Skype | For the transactions. |
| End Users | Potentially during the testing phase and after release | Email, Testing sessions | For the honest feedback! |