IT Project Management Spring 2025
Milestone 1

Submitted by:

Jomana El khatib   58-4193
Youmna Labib   58-15205
Dana Tamer   58-4838
Alia Alaa   58-21705
Hagar Al-Abhar   58-2787

Business Informatics (T.13)
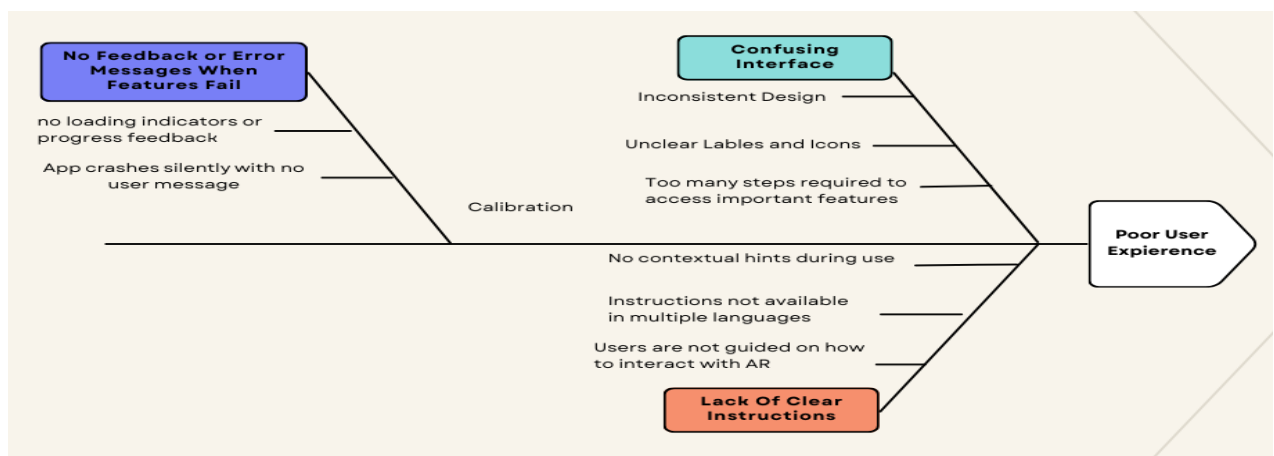

TA
Farida Waleed

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1) Quality Management

For our project, to ensure the effectiveness of our augmented reality tourism application, we need to create a detailed test plan that enhances the experience of tourists and users. The test plan should verify the functionality, performance and usability of the application. It should ensure that the tourists could retrieve the right historical data in many different sites in Egypt in the most efficient way. Our test plan includes several types of testing, starting with unit testing, followed by integration testing, system testing, and finally user acceptance testing. First, Unit testing focuses on testing individual components of the system independently to make sure each works as intended. In our application, we will unit test the AR camera, GPS, and the historical data modules separately. Using inputs to ensure the camera recognizes landmarks and sites, GPS retrieves accurate location data, and the correct historical content is retrieved. After successful unit testing of the individuals' modules during the middle of the development phase we make integration testing which ensures that the various components work correctly when combined. For example, when a tourist points their phone at a historical site, the camera should identify the site, match it with the correct GPS data, retrieve the relevant historical information, and display it to the user. We will evaluate these processes to ensure that the application can handle issues or problems such as GPS signal delays do not interfere with the functionality or accuracy of the application. This helps verify that users will have a consistent and uninterrupted experience as they move from one site to another. In the late development stage, we make system testing; it tests the whole application functionality to verify that it meets the specified requirements. The app must correctly identify the sites with its historical data. We must test that it handles network issues, location tracking and UI navigation. Finally, we will conduct user acceptance testing, which is the most critical stage before deployment. UAT ensures that the application meets the expectations of users and tourists by evaluating its usability, content relevance, and overall satisfaction. Feedback gathered during this stage will help us decide whether to deploy the application or it needs adjustments. We will measure the quality success based on the functionality accuracy making sure the application retrieves right historical data to all landmarks and sites. Another quality success criteria will be the performance and response time to retrieve the data to the users doesn't exceed 3 seconds. The last quality criteria will be the degree of user satisfaction from the user acceptance testing.

Fish Bone Diagram

We used fishbone diagram as a technique to control quality. Fishbone used to identify the factors that cause a problem to help solve the problem.

2) Communication Plan
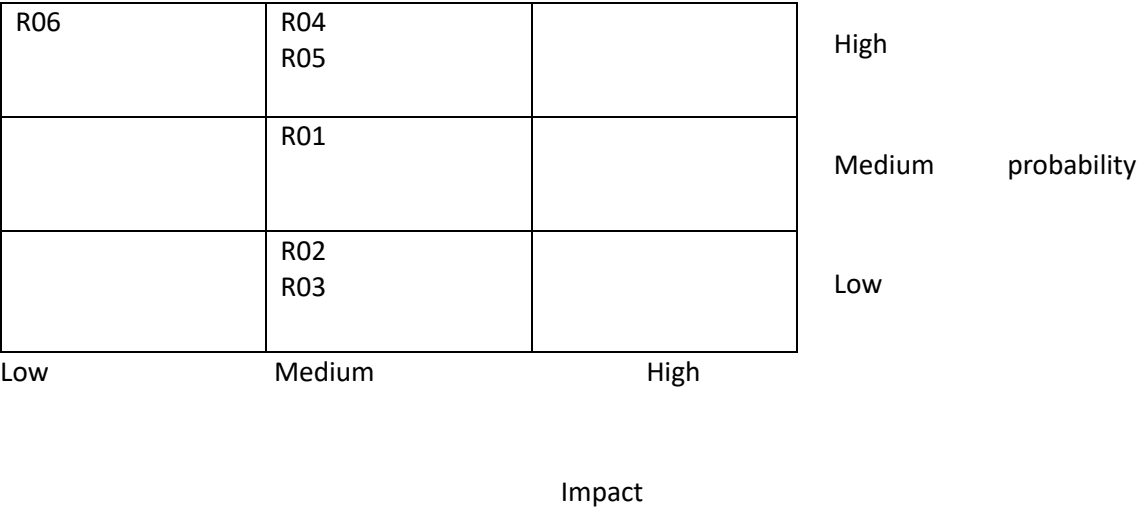
- Communication to stakeholders' input

Stakeholders	Document Name	Document Format	Contact Person	Due
Project Manager	Monthly status report	Hard copy and meetings	App Development Team	First of the month
App Development Team	Progress update report	Jira board	Project Manager	Every 2 weeks
Project Manager	Monthly status report	Hard copy and meetings	Ministry of Tourism	First of the month
Content Creators	Weekly status report	Email	Project Manager	Every Thursday
App Designers	UI/UX design review summary	Hard copy	Project Manager	Every 2 weeks- Every Sunday - starting 30/03
Q/A and Testing Team	Weekly Testing report	Email and Pdf files	Project Manager	Every Sunday in April and May
Ministry of Tourism	User Feedback report	Survey	Tourists (End Users)	After launch- 14/06/2025
Legal & Compliance Team	Compliance & audit report	Email	Project Manager	First of each month
Translation Providers	Language quality report	Email	Content Creators	Every 2 weeks From April

- Bi-weekly (Every 2 weeks in each month)

No	Rank	Risk	Description	category	Root cause	triggers	Potential responses	Risk owner	probability	impact	status
R01	1	Scalability issues (threat)	Media, users, and information on the app are extremely valuable for the project; therefore, if the app has poor scalability when adding media or tolerating large number of users it will cause poor user experience.	Technical issue	Poor data handling infrastructure	Increased Load on Servers Leading to Slow Performance.	Use cloud platforms for scalability	Developers	50%	6	open
R02	2	Hard UX /UI usability (threat)	A UX/Ui not easy for use by people from different cultures leading to few people using the app	Usability issue	Main user actions are split to different screens for example, booking, viewing, and settings are located on different screens.	Negative user feedback about design or navigation	Spend more time on user testing to ensure ease of use and understanding.	designers	20%	4	closed
R03	3	Data privacy (threat)	Collecting user information to enhance their experience presents risk of data leakage.	Privacy issue	The need for collecting user related information.	Data breach	Apply access control, use encryption for data travelling, and regularly audit data.	Chief Information Security Officer	20%	6	open
R04	4	Scope creep (threat)	Adding new features to the application without increase in time, budget, and resources.	Operational issue	Lack of clear scope planning leading to the need of adding more features.	Unclear project requirement	Document everything clearly with stakeholders and prioritize features. Discuss budget, time, and resources changes with stakeholders first.	Project manager	50%	7	closed
R05	5	Data quality (threat)	Poor data quality that is not	Data risk	Outdated data that is not updated.	Inconsistent, missing data	Real time data quality monitoring to	Data quality manager	40%	8	open

			updated and revised regularly can cause operational errors leading to user dissatisfactio n.				ensure regular updates of data.				
R06	6	Emerging technolog y (opportun ity)	Rapid advancemen ts in technology and AR may introduce challenges to keep the application up to date	Technical issue.	Rapid advancement in AR technology.	Release of new hardware/ Software of AR technology.	Adapt to new more advanced technology that can leads to competitive advantage.	developer	20%	7	open

Risk Chart: -

R06	R04 R05		High
	R01		Medium probability
	R02 R03		Low

Low   Medium   High

Impact

3) **Procurement Management**

A) **Tools: voice over and narration services** is essential to provide a great and engaging experience for users, helping them enjoy the experience while visiting and learning about sites. The voice over should be in different languages.

Proposal 1(voices.com): It offers access to hundreds of carefully selected voice performers in more than 100 languages. Their suggestion includes choices to modify tone, style, and emotion in addition to content-specific narration. They guarantee studio-quality audio, careful examination, and multilingual uniformity through their quality assurance procedure. The program offers translation assistance, pronunciation guidelines for rare words, and complete script adaption. Assignments of voice actors are managed by a specialized project manager, and delivery is assured within 3 to 5 business days. The proposal is quite significant because to its language capabilities, customization possibilities, and dependability, even though their prices range from moderate to expensive. The contract offered is **Fixed Price per language/minute.**

Proposal 2(Fiverr): It is predicated on freelancers found via its marketplace. With a wide range of voice actors accessible at cheap prices, it provides the most affordable choice out of the three. Delivery timeframes are frequently quick—usually within 24 to 48 hours—and the platform gives you some control and flexibility by enabling direct connection with the freelancers. However, multilingual help can vary over many profiles, and the consistency of voice quality may differ according on the freelancer chosen. Furthermore, complex functions like audio mixing, background rating, or pronunciation assistance are extra charges, even if fundamental customizations like tone and speed are provided. For informal or small-scale tasks, Fiverr is perfect, but for large-scale professional applications like ours, it might provide coordination and quality control issues. The contract type proposed is **Time and Materials**, based on individual freelancer rates and scope.

Proposal 3 (voice 123): Voice123 offers a model that is a cross between a managed service and a freelancing marketplace. Their offering showcases a well-chosen range of qualified voice actors with variable pricing and quick response times. We may select the most suitable voice actor in terms of accent, language, and tone by using the platform, which enables clients to post full project briefs and receive direct proposals from voice actors. They provide integrated tools for organizing modifications, evaluating demos, and assigning ratings to submissions. Their turnaround time (usually 2–4 days) is a little longer than Fiverr's, but it's still effective. Although Voice123 provides strong quality control, managing communication among many talents takes internal work. Advanced customization is offered at a premium, and their prices are in the middle range. The proposed contract model is **Fixed Price with Optional Add-ons**, which allows flexibility in scaling the scope of work based on feedback or future content expansions.

		Voices.com		Fiverr		Voice123	
Criteria	Weight	Rating	Score	Rating	Score	Rating	Score
Voice quality	30%	8	24.0%	7	21.0%	9	27.0%
Delivery time	30%	9	27.0%	6	18.0%	8	24.0%
Customization	20%	7	14.0%	8	16.0%	6	12.0%
Price	20%	6	12.0%	9	18.0%	7	14.0%
Total Score	100%		77.0%		73.0%		77.0%

Based on the score, we will choose Voice123.

B) Equipment: Cloud based server for real time process with high scalability to ensure that information is quickly generated after image recognition.

Proposal 1 (Amazon web services): AWS offers cloud web servers depending on organizations size, requirements, and configuration. AWS offers preconfigured servers for companies who need to only focus on application building and other packages giving companies complete control over every aspect of the servers. AWS offers time-based payment ranging from 0.011-0.204/hour. AWS has Elastic Compute Cloud (EC2) Auto Scaling and Elastic Load Balancing (ELB) for scalability. In addition, AWS has Data Encryption, Network Protection, and Compliance Certifications for security.

Proposal 2(IBM cloud): IBM Cloud provides a flexible range of cloud server solutions designed to support enterprises with complex workloads and data sensitivity. It offers both **virtual servers** for scalable deployment and **bare metal servers** for full control and performance. IBM Cloud features **time-based pricing models,** with virtual server pricing starting around **$0.038/hour.** For scalability, IBM Cloud offers **Auto-Scaling, Load Balancer Services**, and **Kubernetes-based orchestration.** In terms of security, IBM Cloud includes **data encryption, dedicated private networking,** and strong compliance with standards.

Proposal 3 (Microsoft Azure): Microsoft Azure delivers a comprehensive set of cloud server options tailored to businesses of all sizes. Azure offers preconfigured virtual machines (VMs) as well as customizable environments for organizations needing greater control. Pricing is time-based, at approximately $0.012/hour and scaling up based on performance needs. Azure ensures scalability through Virtual Machine Scale Sets and Azure Load Balancer. For security, Azure provides encryption at rest and in transit, network security groups (NSGs), and adheres to global compliance standards

		AWS		IBM Cloud		Azure	
Criteria	Weight	Rating	Score	Rating	Score	Rating	Score
Performance (scalability and speed)	30%	9	27.0%	8	24.0%	8	24.0%
flexibility	30%	8	24.0%	7	21.0%	8	24.0%
Security	20%	8	16.0%	7	14.0%	7	14.0%
cost	20%	7	14.0%	6	12.0%	9	18.0%
Total Score	100%		81.0%		71.0%		80.0%

According to scores, we will choose AWS cloud servers.

C) **Tools: Software license**: the designers need subscriptions to applications such as Figma and adobe to create the application design. They software must be easy to use, includes unique and strong features, and with great price according to the budget.

Proposal 1 (Figma): collaborative web application for design with offline features. Moreover, it's available on all platforms, such as windows, macOS, and web. Figma pricing plans ranges from 5-55 for organizations and it's a fixed price subscription per month. Features include templates, resource library, colour contrast checker, QR code generator, and wireframing.

Proposal 2 (sketch): a user interface design of websites and mobile apps available on platforms such as, macOS, web, and app store. Sketch has many features such as, text on path, customized text layers, mask bitmaps, pixel fitting, rotate copies, and combine paths. Pricing plan for businesses is fixed price of 22$ per month.

Proposal 3 (adobe creative cloud): includes 20 industry-leading creative applications such as Photoshop, Illustrator, Premiere Pro, and Acrobat Pro. Creative Cloud applications are compatible with both Windows and macOS platforms. Additionally, Adobe offers mobile versions of several apps, such as Photoshop Express and Lightroom Mobile, available on iOS and Android devices. Features include, Creative Cloud Libraries, Coediting and Share for Review, Advanced Version History, and Cloud Storage. Pricing model is a firm fixed price for 90$/month with access to all 20 apps or 36$/month for a single app.

Criteria	Weight	Figma		Sketch		Adobe Creative Cloud	
		Rating	Score	Rating	Score	Rating	Score
Ease of use	30%	9	27.0%	7	21.0%	8	24.0%
graphic design capabilities	30%	8	24.0%	8	24.0%	9	27.0%
UX/UI design tools	20%	7	14.0%	6	12.0%	8	16.0%
cost	20%	6	12.0%	7	14.0%	6	12.0%
Total Score	100%		77.0%		71.0%		79.0%

We will choose Figma according to the score.