Workshop Software specification

Table of Content

Part 1 – Using the Incremental Model

Task 1: How would you break down your project in increments? List the increments.

A breakdown of the project into independent modules according to Agile is an indispensable stage, it paves the ground for incremental value delivery to stakeholders. Here's a breakdown of the project into increments for the banking software system: Here’s a breakdown of the project into increments for the banking software system:

1. Increment 1: Base Accounts Management

- Getting to know and understanding the "what" and "how" of the banking circles and how to open a (personal/business) bank account.
- Update account settings (E.g. User Details, Account Type).
- Close an account.

2. Increment 2: Center Financial Transactions

- Put in the delivered cash and print the receipt as well.
- Continue to get real-time cash in the account balance.
- Facilitate the transference of monies belonging to the same account.

3. Increment 3: Uplifted Account Services

- Lookup information of detailed account such as current account balance or recent transactions.
- Get and put into range of services such as checkbooks and debit/credit cards.
- Develop and maintain automatic payment and direct debit arrangements.

4. Increment 4: The Security and Compliance

- Install strong authentication methods (two-factor or whatever else you want to describe it).
- Provide for encryption on the sensitive data level.
- Keep in mind all the related safety regulations that cover money transfers and protect personal data.

5. Increment 5: Customer Support and Maintaining

- IT interface for supporting customers.
- The unique aspect of the report is the option to identify suspicious activities or fraudulent ones.

6. Increment 6: Invoicing & Loans (Optional)

- Interface for researching companies and handling investments in the stock market.
- Do calculations the loans for personal and for business.

7. Increment 7: The AI-Based Financial Advice (optional)

- Employ the use of AI algorithms to suggest customized financial counseling by looking at users' credit card receipts and saving objectives.

There is a steady progression over these steps. Each incremental step contains the them from the previous one thus adding new features and functionalities to the banking software system. The iterative process included building a solution that will render the benefits right from the beginning so as to receive feedback from stakeholders while also being willing to respond to changing requirements.

Task 2: How would you plan your project's timeline?

Tasks and milestones are then mapped during the planning stage of the project, spanning the timeframe that is given to complete the project. Here's a high-level overview of how we could plan the project's timeline: Here's a high-level overview of how we could plan the project's timeline:

February:

Weeks 1-2: Project initiative and planning.

- In the project scope, determine the specific projects along with its objectives and deliverables.
- Gather the requirements and come up with the suitable features.
- People need to establish the project management tools and communication channels.

Weeks 3-4: Increment 1: Base Accounts Management

- Consider at least functionality that allow customers to create, edit, and close accounts.
- Try out the theory on the pilot group and make improvements stage.

March:

Weeks 1-2: Increment 2: Center Financial Transactions

- Implement a voter deposit, withdrawal, and fund transfer procedures.
- Conduct testing and show the normal state of balance at this moment.

Weeks 3-4: Increment 3: Uplifted Account Services

- Implement complicated accounts with detailed history, service requests, and automated payments.

- Do trials and modify GUIs.

April:

Weeks 1-2: Increment 4: The Security and Compliance.

- Feature authentication, data encryption, and compliance among the measures.
- Perform security testing and have the rules to meet the set regulatory requirements.

Weeks 3-4: Increment 5: Customer Support and Maintaining

- Design an assistance desk and bug tracking features.
- User acceptance testing (UAT) and fix any issues you may come across.

May:

Weeks 1-2: Increment 6: Invoicing & Loans (Optional)

- Build extra features in addition to investing management and loan services for customers.
- Carry on testing after it has been integrated and make sure it's compatible with the current implementations.

Weeks 3-4: Increment 7: The AI-Based Financial Advice (optional)

- Caregiver AI algorithms can be applied independently to profit investors on a personal level.
- Perform testing and improve the algorithms complemented by users' feedback.

June:

Weeks 1-2: Final Testing & Quality Assurance

- The quality assurance must be done thorough integrity testing including system integration testing and performance testing.
- Address any final issues and confirm overall program reliability.

Weeks 3-4: Deployment and launch operations.

- Trial run the app before deploying it into the production environment.
- Do user training and write documents.
- Launch the banking software system and then if any issues occur to be found, attend to those.

This timeline helps with project execution in a structured way, following the idea that every increment is executed within the assigned timeframe, and allowing for reacting to any changes and situations that have not been foreseen while going through the execution. On top of everything, it enables continuous value delivery with people individuals and stakeholders experiencing functional releases of the software during the endeavor cycle.

Part 2 – Software Specification

Task 1: Feasibility Study to produce a Feasibility Report (or Study)

1. Technical Feasibility:

Analysis:

The technical feasibility has been wisely examined to make the bank system software dependable so that it is capable of efficient development and implementation. The following aspects have been carefully evaluated: The following aspects have been carefully evaluated:

Technical Skills and Capabilities:

The team members of the software development team have been through a detailed assessment, which shows their technical expertise and comprehension of the task at hand. Our team is consisting of an experienced cohort of developers which having a solid experience in C# programming and high proficiency in .net framework. The unique blend of experience and product understanding makes them the optimal choice for the creation of complex banking application software for the Windows system that corresponds to all the market needs and audiences.

Technology Stack:

Selecting the proper technology stack for the project has a vital significance in computing its technical feasibility. VS-IDE and dot-net are chosen to take advantage of their state of the art, robust code quality and wide spread usage in the community of software development. Such technologies are the fore's in any successful system that can be scaled without security risks or performance issues. Also, with wide documentation, available community support as well as a vibrant and constantly expanding ecosystem with lots of third-party libraries and tools, this engages the development process up and speeds up time-to-market.

User Base and Community Support:

User extensively support the technologies and the segment from the user base is one of the critical pillars of technical feasibility. The enormous amount of C#, .NET framework, and Visual Studio IDE gives a good access to assistance and a lot of platforms, forums, and handbooks for a developer. This will provide the development team a chance to cultivate they have, proven methodologies and solutions to deal with technical problems and the production process. In addition to this, active participation in active network community and forums where live conversations are taking place increases collaboration, knowledge sharing, and learning, which both improves team abilities and projects success.

2. Operational Feasibility:

Analysis:

Operational feasibility will be a critical part of the project planning as well, guaranteeing the new banking software system is fully and smoothly integrated with the current operations of the company and widely accepted by the end-users. The following analysis highlights key considerations in assessing the operational feasibility of the project: The following analysis highlights key considerations in assessing the operational feasibility of the project:

Prioritization of User Requests:

The software's development team has shown by example that when it comes to implementation of user requests, it takes into consideration their potential effect on both operational efficiencies and customer satisfaction. Through a series of consultation with key business stakeholders and end users, the team has understood the indispensable characteristics and functionalities the app should possess to meet operational targets and optimize user engagement. This strategic design makes sure that the development programs encouraged by the organization are in line with the organizational policies and the end-users receive prove of their worth.

Evaluation of Alternative Solutions:

During the software development, the team has tried different ways to come up with the most optimal decision, regarding the issues/ restrictions uncovered at the course of this project. Under this alternative plan, various existing solutions have been tested in terms of their viability, efficiency, and alignment with the organizational goals. Team members have participated in exploration of many alternatives and determined those that will be the most efficient in realizing the envisioned purposes of the banking software system.

Stakeholder Acceptance and Satisfaction:

Stakeholders' feedback has been very relevant to the project management and our objectives as an organization. It has played a vital role in shaping our project's direction and striving towards meeting the organizational goals. The communications channels have been developed broadly to get people's input, solutions, and to ensure the proposed solutions meet the expectations. Positive feedback from stakeholders pointing out a high level of acceptance and satisfaction with the offered solution means that the team is credible for developing a software system that meets future users' needs and expectations.

User Training and Onboarding:

With the realization that user adoption and efficiency are priority, the design of training process and onboarding have become crucial for effective transitioning to the new software system. Our training materials, tutorials and user guides have become very practical for making new users familiar with the features and functions of the banking software system. Not only are there hands-on workshops and

interactive sessions that help beginners to get comfortable with working in the software, but they are designed in such a way that it is easy for them to do the tasks in an efficient manner.

3. Economic Feasibility:

Analysis:

Financial effectiveness, which is an important item of the project, conditions the process of the bank software development and its implementation to suit the financial requirements and objectives of the organization. The following analysis provides an in-depth examination of the economic feasibility of the project, considering various cost factors and potential returns on investment: The following analysis provides an in-depth examination of the economic feasibility of the project, considering various cost factors and potential returns on investment:

Long-Term Benefits:

The expenditures incurred within software development are judged on the basis of being an investment rather than costing, on the anticipation of gaining large scale long-term benefits to the organization. To say, the advantages are not limited to the monetary gains but ultimately result in improved the efficiency of operations, standardization of processes, and client satisfaction. With the use of new technologies to automate and improve banking operations, as well as having an intuitive interface that is easy to use for users, the organization has an edge over its competitors and is able to maintain the leadership in the industry.

Cost Analysis:

In order to ensure proper and sound financial foundation of our project, we have conducted a thorough cost evaluation that maintains a financial balance and good management of the budget. This review studies various cost components, including hardware costs, software costs, development teams ` wages and training and continuing maintenance and support costs. Every cost element has been carefully counted in the budget in such a way that the unexpected cost increases cannot happen and the budget cannot exceed a limit of the financial constraint.

Return on Investment (ROI):

The expected ROI of the bank software project is supposed to be very large, that it would more than cover the development costs, which will result in a company economy gain to the organization. ROI is assessed by subtracting the net benefits arising from the usage of the software system, e.g. the gains achieved in the form of increased productivity, cost reduction and the increase of the revenue. Through this automation, the banking operations are made faster, with fewer manual errors, while the overall customer service is enhanced, all of which are fundamentals for the good profit made by the organization in the long run.

4. Legal Feasibility:

Analysis:

Public legality is an essential factor in the project, namely in making sure that all the banking program is made and run within the bounds of law, regulations and ethical values. The following analysis provides an in-depth examination of the legal feasibility of the project, considering various legal and regulatory requirements: The following analysis provides an in-depth examination of the legal feasibility of the project, considering various legal and regulatory requirements:

Examination for Legal Compliance:

The project has gone through a very detailed assessment so that it meets all of the rules and regulations such as data protection and intellectual property rights laws and the bank-regulations especially. Therefore, when assessing and determining the legal environment and put in place systems to guarantee compliance throughout the project's lifecycle by ensuring there is a systematic review of the relevant statutes, regulations and industry standards.

Obtaining Necessary Certificates and Licenses:

In order to have legal authority for the implementation of the project, the necessary certificates, licenses and copyrights has be obtained from regulatory authorities and governing bodies. These certificates are a proof of the project's adherence to legal boundaries and permit it to run legally. They contain all details of what the project will do and who will do it. Having necessarily obtained the consent and authorization of the law agencies and bodies carried out by the project during the process of implementation reduces the risk of a legal complaint that could block the project's process.

Compliance with Legal and Ethical Requirements:Compliance with Legal and Ethical Requirements:

The banking system software, shown to have both legal requirements and ethical standards, is the one we will base our software around. People oriented indicators have been set to safeguard user data, preserve data privacy, and guarantee the confidentiality and integrity of private information. Furthermore, data security measures have been put in place that rule out unauthorized access, improper use, and breaches of user confidentiality, hence reinforcing the ethical standards and giving a healthy notion of trust and reliability to the platform users.

5. Schedule Feasibility:

Analysis:

One of the most important things that will be crucial to the implementation procedures of this project is to make sure it is scheduled feasible so that we will be able to complete the developing and deploying of

the banking software system in time. The following analysis provides a detailed examination of the schedule feasibility of the project: The following analysis provides a detailed examination of the schedule feasibility of the project:

Comprehensive Schedule Development:

The schedule is comprehensive and was elaborately prepared containing the plan of project duration, milestones as well as the main deliverables. The schedule positions the project team to have a planned course of action of the entire project life cycle that starts from estimations and analysis, through development, test and release. Along with the creation of a complete set of project time frames and milestones, the schedule can act as a guideline for project management and thus would become an intermediary relating to the organization's goals and targets.

Careful Estimation of Time Requirements:

An estimate of time to completion ratio has been calculated with the consideration of the major development tasks including resource availability and possible dependencies. Having few details about the size of the project, team's skill level, and the availability of key resources have been weighed in arriving at reliable timelines for each phase of the project development. In particular, this accurate estimation of needs makes it possible to spot forthcoming obstacles and resource deficits in time, proving to be a preventive measure for the implementation of different tactics.

Regular Progress Monitoring:

Implementing regular monitoring and tracking processes that would enable the project schedule to be tracked and any hindrance addressed proactively are some of the mechanisms that have been developed to ensure the project is executed on time. Among project managers and team leaders periodical progress evaluations and status reports are realized to ease tracking of tasks implementation relative to the given timeframe. Any deviation from the set plan is immediately identified and effort is made to rectify the situation timely through proximate actions such as reallocation of resources, reorganization of tasks or adjustment of scope. By staying on top of tasks, this preemptive approach contributes to the consistency of the project, which will in turn contribute to achieving the end goal on time.

Adjustment of Timelines:

These are priceless attributes in the planning and management of schedules, this is why the schedule is greatly reviewed as well as flexible when some changes in the project scope, requirements, or availability of components occurs. Activities such as preemptively identifying the schedule risks and constraints provide the project management team with the knowledge that will help them make relevant decisions and, in turn, proffer corrective actions to be executed so as to ensure that project goals are met within the agreed timeline. This cyclical approach to the planning of a project is very productive and flexible which enables a project to remain attentive to circumstances even if they do change but at the same time it makes sure that the project still brings value to the stakeholders.

Conclusion:

The identification of technical, operating, economic, legal, and scheduling factors have established the developing of the banking software system to be feasible. By following the legal and ethical guidelines, in addition to the approved time limit and financial constraints, the outcome of the project is expected to tremendously contribute to the organization.