UNIVERSITY of GREENWICH
Alliance with FPT Education

ĐẠI HỌC GREENWICH (VIỆT NAM)
Liên kết với Tổ chức Giáo dục FPT

Assignment 1

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Learner declaration: I certify that the work submitted for this assignment is my own and research sources are fully acknowledged.			
Learner signature	Duy	**Date**	**17/2/2021**

Grading grid

P1	M1	D1

Contents

Assignment Brief

Scenario

Tune Source is a company headquartered in southern California. Tune Source is the brainchild of three entrepreneurs with ties to the music industry: John Margolis, Megan Taylor, and Phil Cooper. Originally, John and Phil partnered to open a number of brick and mortar stores in southern California specializing in hard-to-find and classic jazz, rock, country, and folk recordings.

Megan soon was invited to join the partnership because of her contacts and knowledge of classical music. Tune Source quickly became known as the place to go to find rare audio recordings. Annual sales last year were $40 million with annual growth at about 3%–5% per year. Tune Source currently has a website that enables customers to search for and purchase CDs.

This site was initially developed by an Internet consulting firm and is hosted bya prominent local Internet Service Provider (ISP) in Los Angeles. The IT department at Tune Source has become experienced with Internet technology as it has worked with the ISP to maintain the site.

***System Request

---Project Sponsor: Carly Edwards, Assistant Vice President, Marketing

---Business Need: This project has been initiated to increase sales by creating the capability of selling digital music downloads to customers through kiosks in our stores, and over the Internet using our website.

--- Business Requirements: Using the Web or in-store kiosks, customers will be able to search for and purchase digital music downloads. The specific functionality that the system should have includes the following:

Search for music in our digital music archive.

Listen to music samples.

Purchase individual downloads at a fixed fee per download.

Establish a customer subscription account permitting unlimited downloads for a monthly fee.

Purchase music download gift cards.

--- Business Value: We expect that Tune Source will increase sales by enabling existing customers to purchase specific digital music tracks and by reaching new customers who are interested in our unique archive of rare and hard-to-find music.

We expect to gain a new revenue stream from customer subscriptions to our download services. We expect some increase in cross-selling, as customers who have downloaded a track or two of a CD decide to purchase the entire CD in a store or through our website.

We also expect a new revenue stream from the sale of music download gift cards.

Conservative estimates of tangible value to the company include the following:

$757,500 in sales from individual music downloads

$950,000 in sales from customer subscriptions

$205,000 in additional in-store or website CD sales

$153,000 in sales from music download gift cards

--- Special Issues or Constraints:

 The marketing department views this as a strategic system. The ability to offer digitalmusic downloads is critical in order to remain competitive in our market niche.

Our music archive of rare and hard-to-find music is an asset that is currently underutilized.

 Many of our current loyal customers have been requesting this capability, and we need to provide this service or face the l oss of these customers' business.

 Because customers have a number of music download options available to them elsewher e we need to bring this system to the market as soon as possible.

I. Introduction

-When you wish your business to create money, this project can facilitate your increase sales by allowing you to sell music by downloading it over the web using the Tune Source website on our system. Users can explore for and get digital music downloads, and you'll be able to have specific functions along with your ISP to stay the system running smoothly.

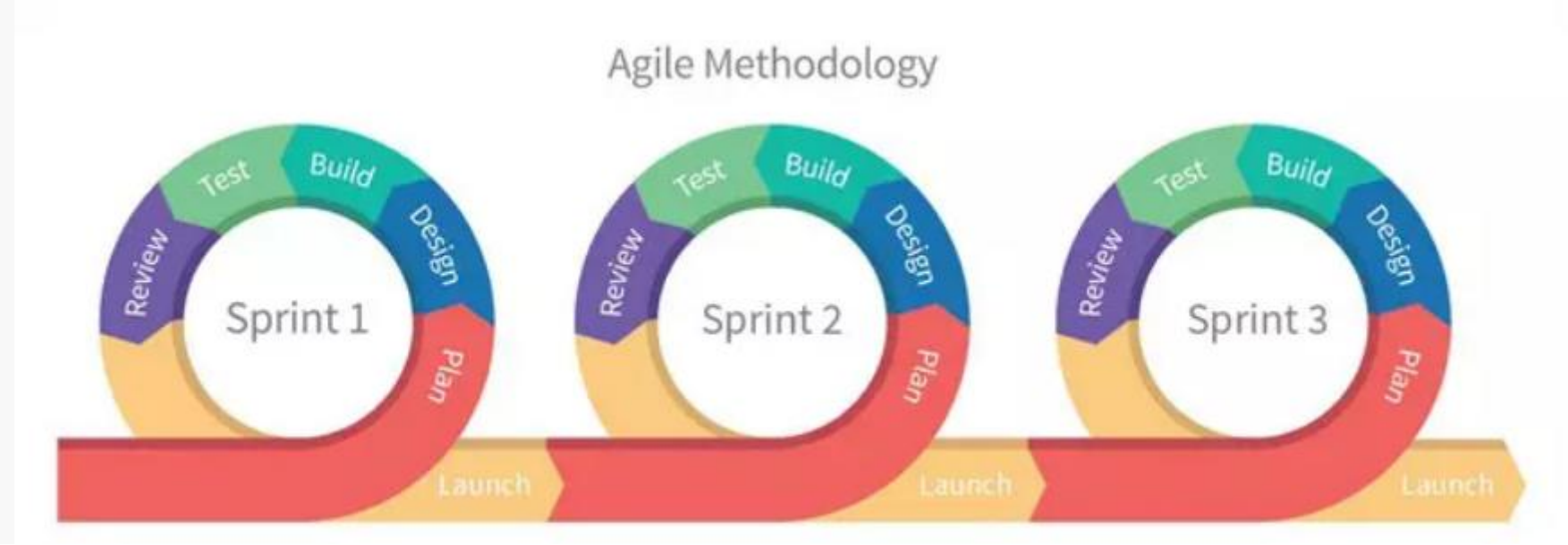
-This report gives people a more robust understanding of us new project. Discuss the project's income and profit goals, still because the benefits, drawbacks, and risk dangers, and educate individuals on the 'developing life cycle of the system.'-SDLC

-P1. Describe two iterative and two sequential *software lifecycle models*.

I. Two iterative: (Spiral and DSDM)

1. Agile

(https://itzone.com.vn/en/article/agile-model/, n.d.)



In English, the word Agile meaning "agility and adaptability."

Agile could be a project management methodology that employs short development cycles called sprints so as to induce a product into the hands of consumers as rapidly as feasible.

- Disadvantages of Agile Development Model:

More time and dedication are required...

There is less predictability. Developers might not be ready to measure the complete scope of the trouble necessary for a few software deployments...

Projects can fail thanks to a scarcity of needed document.

Developers and clients will must meet more stringent restrictions

--Why should we choose and use Agile Development Model?

Many firms are adopting the Agile Development Model

-To enhance team productivity, customer happiness, project integration and control flexibility (lower project debt), and risk management.

Flexible: Companies that utilize agile approaches can adjust quickly to plug changes and complete all of their projects on time.

Adaptation: Agile training is a superb method to put the groundwork for your business and project team's adoption of Agile and related execution techniques.

Boost customer satisfaction:

Many myths and misunderstandings about Agile procedures is also dispelled via Agile training. it should also help to market and disclose the core of Agile concepts, similarly as illustrate the distinctions between various implementation approaches.

2. Spiral:

((http://www.ques10.com/p/24826/explain-the-spiral-model-compare-and-contrast-it-w/) , n.d.)

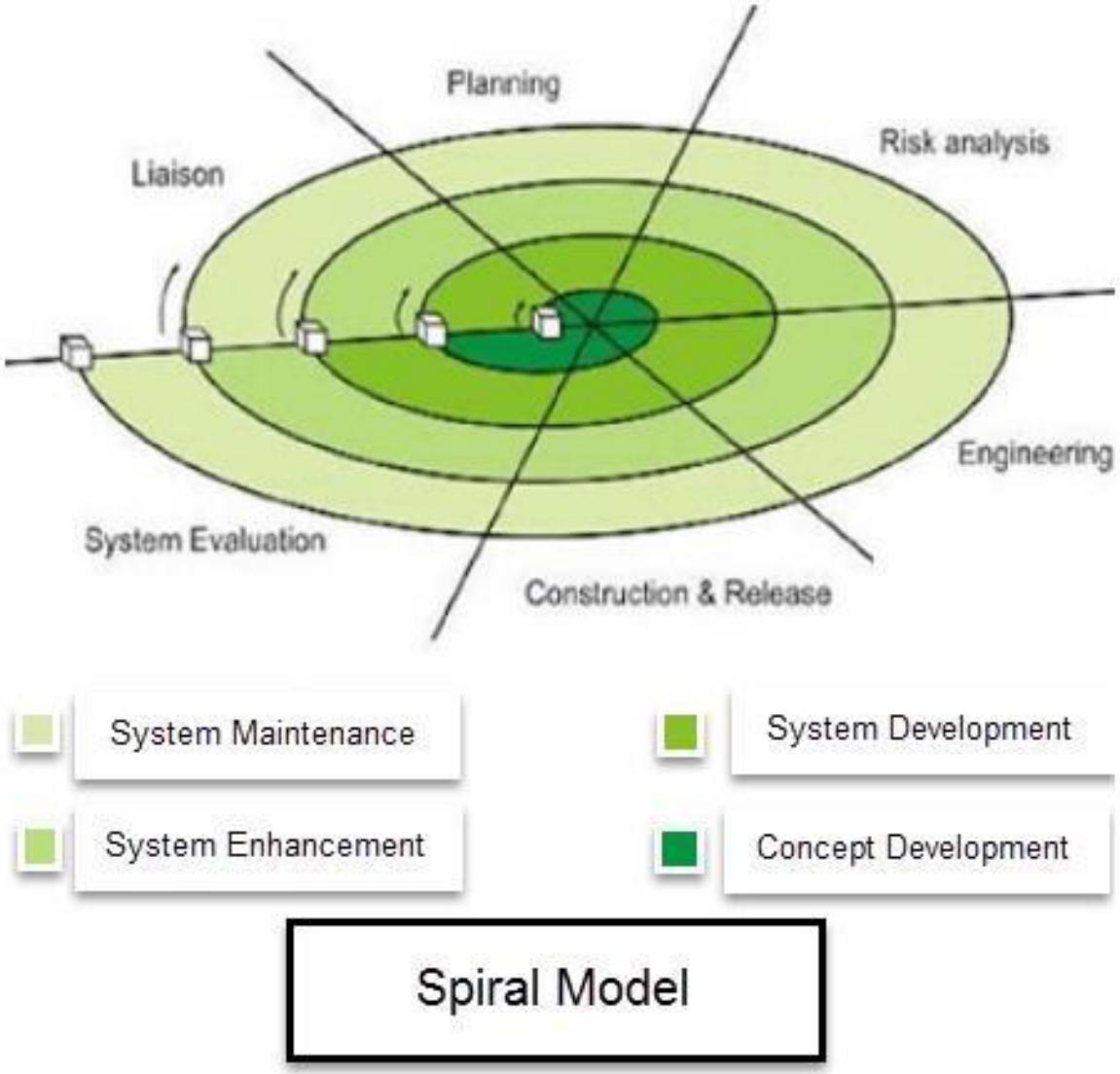


Image 12 months ago by (iampriyanka.dhuliya, ques10.com, 2018)

(http://www.ques10.com/p/24826/explain-the-spiral-model-compare-and-contrast-it-w/)

Software development process - The Boehm's spiral model

Spiral-Model is a model with a combination of waterfall model (Waterfall-Model) and iterative approach (Iterative-Model), focus is on risk assessment and on minimizing project risk by breaking a project into smaller segments and providing more ease changed during the development process, as well as providing the opportunity to evaluate risks and weigh consideration of project continuation throughout the life cycle. The combination of the strengths of other models and the difficulty of the previous models still exist. And it has many similarities with increasing model (Incremental-Model).

Based on the specific risk models of each project, the spiral model shows how to apply the elements of one or more processing models, such as acceleration models, waterfall models or models.

Focus on project risk analysis. Each stage in the model begins with the design requirements objectives and ends with the customer checking the progress of each stage. Spiral model was first mentioned by Barry Boehm in his article titled "A Spiral Model of Software Development and Enhance in 1986. In the spiral model, the software development process is represented as a spiral ring.

Each level, cycle in the spiral involves planning, analysis, risk detection, system improvement and further modeling. In essence, it describes the development of software through the evolutionary stages, each of which is treated as a waterfall model, starting from an overall concept-of-operation document and going to the coding of each individual program.

Stages of spiral models:

• Planning phase:

Collect, set up problems, resources and analyze project requirements from customers. Cost the estimation, project implementation schedule, number of personal, work environment, learn system requirements, and then specify specification to recover Service for exchange between customers and system analysis

• Risk analysis: Identify ,consider and resolve risking, find solutions

• Technical execution: This is the stage when the project is code-driven, the tester conducts for test and deploying software on the client's website

• Evaluation: Customers will participate in this phase to evaluate the work, customers evaluate the product development version and ensure that the product meets all the requirements set forth earlier. If there is any change request from the customer, the stages will be repeated. This is an important stage because customer feedback is required for the product before the product is released. And the plan will repeate again.

Spiral's advantages:

• Project risk analysis is filled as an essential part of the spiral process to increase project reliability because of easy and effective project monitoring. As converging good features and overcoming weaknesses of many other development models encountered.

• Risk control at each stage of development.

• Develop projects with a combination of other models in development (Waterfalls, models ...)

• It is considered as a composite model of other models. Not only for software but also for hardware

• A certain risk is not resolved, the project is terminated

• Very suitable for high risk projects and risk reduction, dealing with changes in project implementation

• Allow to change depending on the requirements for each spiral ring

• Evaluate fees more accurately than other methods

• Circles are looped to respond to user changes

Spiral's disavantages:.

• Not useful for small-scale projects.

• Time and cost for the project may be limitless because of the spiral characteristics of the model.

• Risks may not meet schedule or budget.

• The success of the project depends very much on the risk analysis stage because the cost of risk analysis is greater than the cost of the whole project.

• Documentation for the project can be very long because there are intermediate stages.

• This model requires risk identification, at the analytical stage, a highly qualified specialist is needed to perform the analysis such as forecasting and risk assessment

3: DSDM:

In the early 1990s, rapid application development (RAD) for software development and providing fast project release platform has spread throughout the IT industry. The user interface for software applications has moved from the old blue screen to the graphical user interface used today. New application development tools have appeared on the market, like PowerBuilder.

These developers allow developers to share their proposed solutions more easily with their customers - prototyping has become a reality and frustration of development methods (waterfalls). Classic can be set aside. However, the RAD movement is very unstructured: no common definition is agreed on a suitable process and many organizations have their own definitions and approaches. Many large corporations are very

interested in possibilities, but they are also concerned that they do not lose quality levels in the final products that free flow development can create. DSDM gradually became the No. 1 framework for fast application development (RAD) in the UK.

DSDM is a free work framework and is not bound by copyright laws for RAD development, maintained by the DSDM Consortium. Developers maintain that in addition to serving as one of the generally accepted methods DSDM also provides a control framework for RAD, complemented by guidance on how to effectively control it. The basic idea behind DSDM is that instead of fixing the number of functions in a product and then adjusting the time and cost to complete, it will fix the time and cost of completion and then adjust The number of functions is appropriate. Apply a method of prototyping and incremental access to solving software development errors such as lack of time, excess budget and lack of user participation.

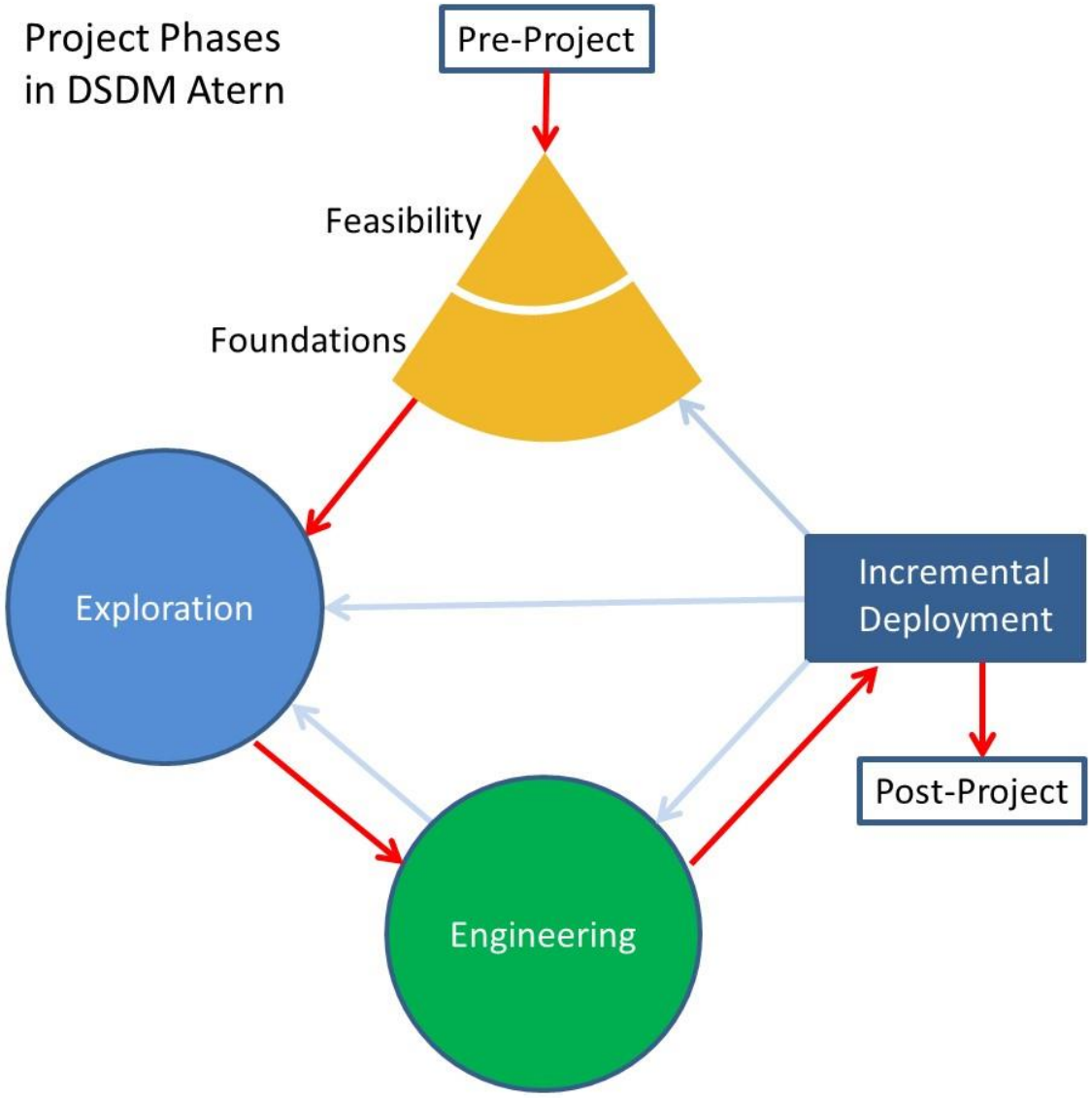
An important aspect of DSDM is that essential users are actively involved and the development team is empowered to make decisions in the project. The goal of DSDM is to deliver projects on time and on budget, while flexible enough to meet changes in requirements. This allows DSDM to be suitable for unclear projects or can be changed at any time in the development stages. Regular release of products becomes the focus of DSDM operations.

DSDM consists of 5 stages:

feasibility study, business study, functional model iteration, design and build iteration and implementation:

The first two phases are carried out consecutively and completed at the same time. The last 3 stages, each time the current development work is completed, will be repeated on a larger scale.

((https://en.wikipedia.org/wiki/Dynamic_systems_development_method) , n.d.)


Project Phases
in DSDM Atern
Pre-Project
Feasibility
Foundations
Exploration
Incremental
Deployment
Post-Project
Engineering

(Wikipedia) *Image by Wikipedia Community*

(https://en.wikipedia.org/wiki/Dynamic_systems_development_method)

-Feasibility study: is the stage of DSDM that for the project is evaluated. Through many factors and other types of projects decided to be launched, use DSDM or not. In addition, this stage also refers to the risks in which technical feasibility throughout the project and provides feasibility report and draft development plan.

-Business study: is the phase of the basic characteristics of the task to be performed and the technology analyzed. Approached approach to the organization of workshops, where the client's experts are fully focused to be able to review and evaluate all aspects of the system, can decide what is prioritized for development. Identifying the affected user classes has attracted customers. A higher level description of the processes presented in the Business Area Definition with the appropriate format such as an associated entity model, ...

-Functional iteration model: is the first iteration and incremental phase. Testing is also a fundamental part of this phase. In each iteration, the content and approach are planned, going through that iteration and the results are analyzed for the next iteration. After the analysis and writing of the code is completed, the trial version is built and the experience gained from them is used to upgrade the analysis model. The trial version is not completely removed but gradually goes towards quality improvement, so they can be included in the final system. Functional models are created as an output, including analytical models and trial version codes

-Design and build iteration: is the stage in which the system is focused on building. The output is a tested system that meets minimum customer requirements. The trial version design and features have been evaluated by users and future developments will be based on those evaluations.

-Implementation: is the stage when the system is transformed into the actual production environment. Training, user training is conducted and the system is operated by them. Deploying to attract a large number of users, the additional phase can also be repeated. Besides the system, the output of the additional phase also includes user documentation and project evaluation reports. Based on the evaluation results of the project, the plan for future developments was built. DSDM outlines four possible possibilities and if the system meets all requirements, further development

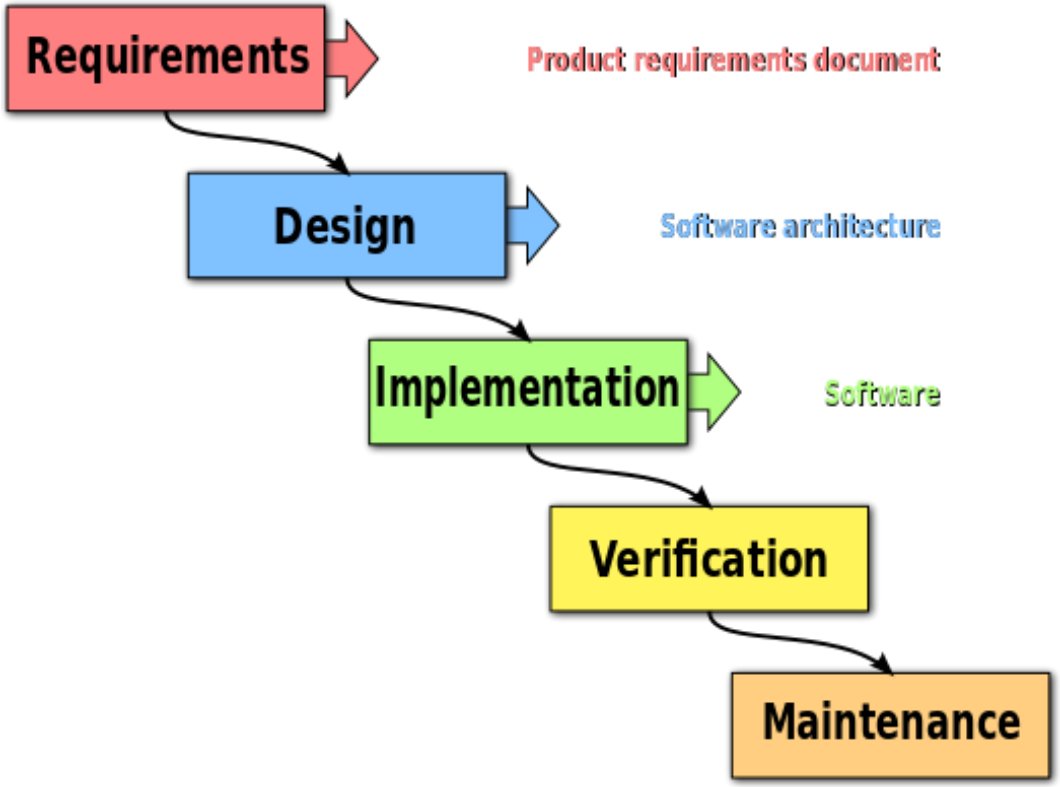
is not necessary. But if there are still system requirements that are not met, the development process may have to be repeated from start to finish. If some functions are omitted, the development process can be repeated from functional model iteration.

Finally, if some technical issues are not focused due to time constraints, they can be completed when the loop is re-started, starting from the construction and design phases.

II. Two sequential *software lifecycle models*:

4. Waterfall

((https://en.wikipedia.org/wiki/Waterfall_model) , n.d.)



(wikipedia) *Image by Wikipedia Community*

(https://en.wikipedia.org/wiki/Waterfall_model)

What is waterfall?

This is the primary time the general public has seen a process model. A linear-sequential life cycle model is another name for it.

The waterfall model could be a software development process paradigm during which the event process is shown as a nonstop flow. Follow a sequential, linear process that has requirement analysis, design, implementation, testing, links, and maintenance, all of which must be completed in exact order and without backtracking or phase jumps. At the conclusion of every stage, an evaluation is conducted to make a decision whether the project is on the right track and whether it should be continued or cancelled.

For software development and IT projects, this can be the foremost prevalent model of the system development lifecycle (SDLC). People frequently use Winston W. Royce's 1970 essay to elucidate the origin of the phrase "waterfall," however it's worth noting that Royce used the term "iterative development model" instead of "waterfall model."

Waterfall models are derived from the manufacturing and construction industries, when any modification is extremely costly and infrequently impossible. in an exceedingly paper published in 1970, Royce presented what's now referred to as the "waterfall model," outlining its drawbacks and stating, "This could be a bad software development approach." He also said that this model reformed into a recurring model in his paper.The original Royce model has phases in the following order:

Determine the requirement

-Design

-Build

-Link

-Testing and Editing

-Setting

-Maintenance

- Advantages of original water model:

Waterfall models are simple to use, comprehend, and administer since they follow the identical processes for every project in an exceedingly sequential order. The staff doesn't have to be trained before beginning work on comparable projects. Waterfall is additionally rather rigorous; each step will contain an inventory of products, making product management and evaluation easy.

*Model with discipline:

It is a guide for determining analysis, design, coding, and maintenance procedures. The Waterfall model includes a beginning and an end point for every step, making it simple to report work progress with stakeholders. it's feasible to reduce the chance of not achieving the deadline if the team is concentrated and also the process of learning client requirements and style before performing coding is followed.

As a result, these model steps are processed and completed on an everyday basis. there's no overlap between the stages.

*High demand for documents:

With waterfall, each step must be explicitly distributed with landmarks for every level, ensuring a more robust grasp of the program's requirements and logic. Furthermore, project materials is also reused in other projects or shared with stakeholders to validate specifics a couple of certain stage. The Waterfall methodology is right for smaller projects with well-defined needs.

- Disadvantages of original water model:

Long-term and continuing initiatives receive less model assistance.

Not recommended for projects with a high rate of change in requirements.

Until the conclusion of the life cycle, no functioning software is developed.

High risks and uncertainties like small modifications or faults in finalized software can create many difficulties whether or not modifications occur, you'll be unable to transition between phases.

For sophisticated and object-oriented applications, this can be not an appropriate paradigm.

5. V model:

The current V model is one of the most widely used software development processes. Basically, V Model is quite similar to the waterfall model on how to perform sequential procedures, each stage must be fully completed before starting the next stage. In the V model, the test implementation takes place right from the required stage. V models are also called verification and validation models. Instead of moving down in a linear way, the process steps are bent up after the coding phase, to form a typical V-shape. The difference from Waterfall is that testing is done in parallel with each stage. The horizontal and vertical axes show the time or degree of completion of the project (from left to right) and the level of abstraction.

((https://viblo.asia/p/mo-hinh-phat-trien-phan-mem-v-la-gi-07LKXwAr5V4) , n.d.)

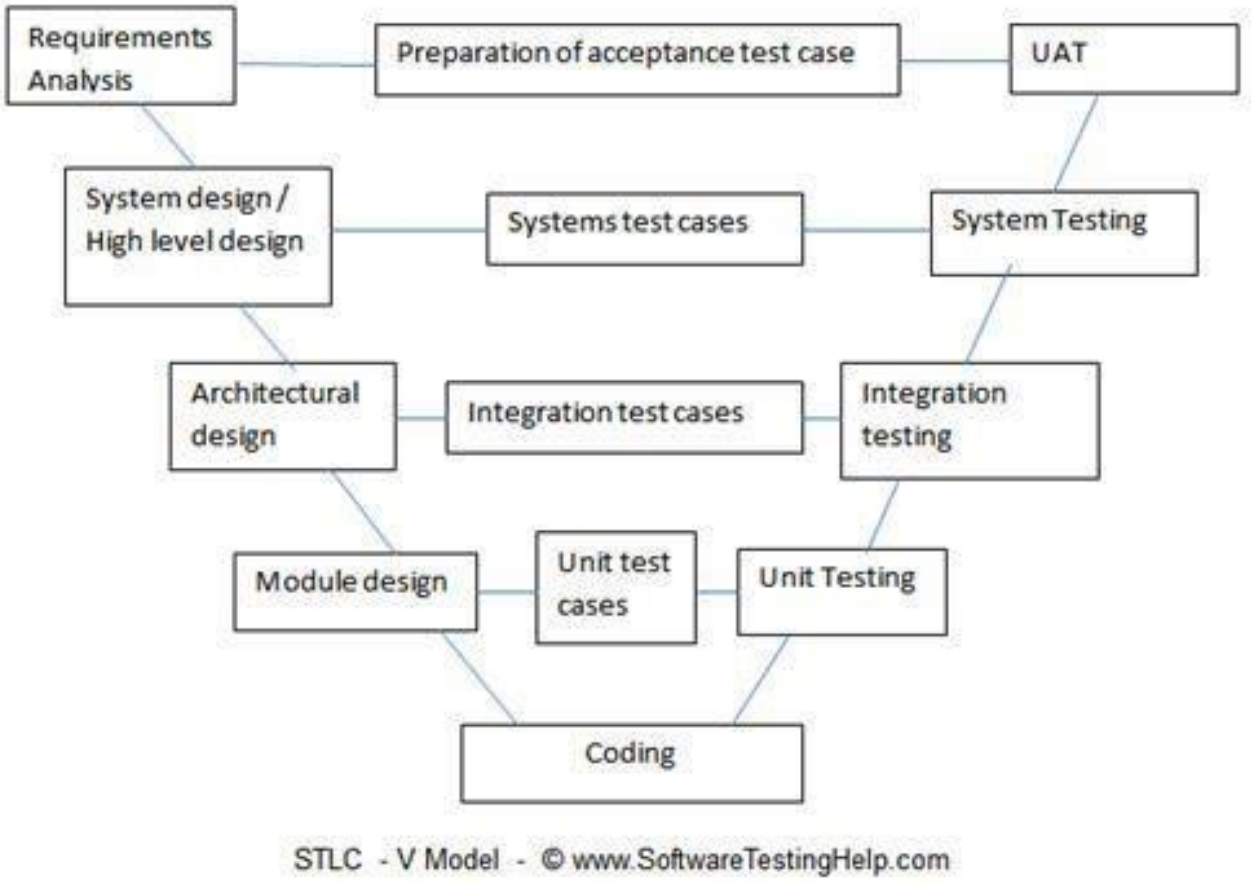


Image by (Ngo)

(https://viblo.asia/p/mo-hinh-phat-trien-phan-mem-v-la-gi-07LKXwAr5V4)

Verification: Verification is a static analysis technique. In testing, this technique is implemented without running code. It includes a number of activities such as review, review and inspection from beginning to end

Validation: Validation is a dynamic analysis technique, in which testing is done by implementing code. Examples include functional tests and nonfunctions

-Disadvantages of original water model:

Less flexibility and rigidity. It is shown that after each step, there must be one - the test stage, if the project requirement is not too complicated and easy to implement, then the implementation of many such test stages is time consuming.

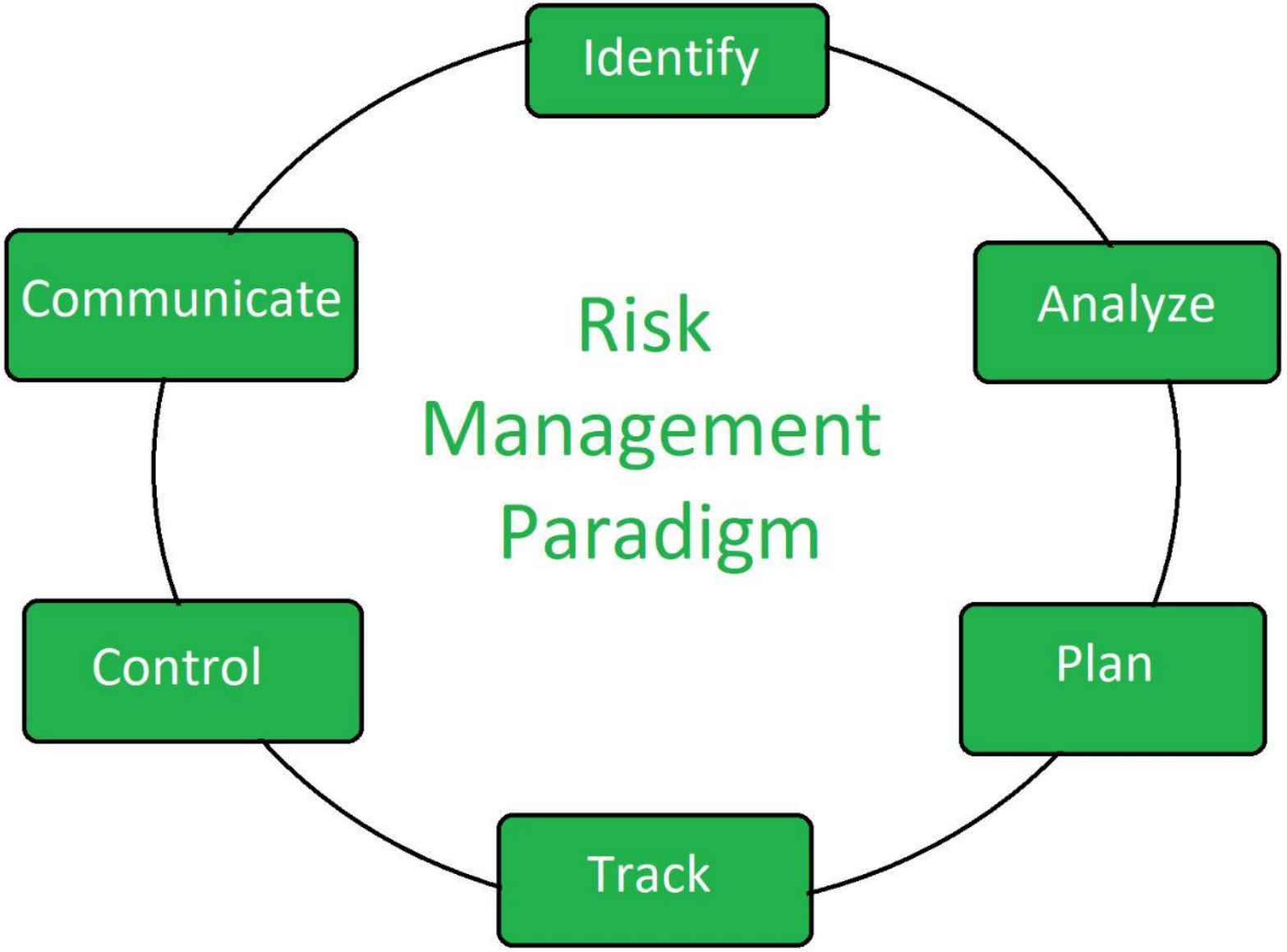
Like the waterfall, the product of the project will only appear when all steps are completed, no prototypes from the beginning. Failure to meet the requirements of service development, along with selling products.

If there is a technical change in the middle, it will have to go back to the first steps, redo, update the document again.

P2. Explain how risk is managed in the *Spiral lifecycle model*.

1. Steps of risk management

(https://www.geeksforgeeks.org/principles-of-risk-management-and-paradigm/, n.d.)



-Identifiy:

before the occurrence of significant issues, risks are recognized.

Risk control might not be tougher if dangers are discovered before they will become a significant issue.

- Analyze:

an intensive examination of the character, behavior, capacities, and categories of risk, in addition as military operation.

It's needed to work out what proportion risk knowledge you have got.

-Plan:

Make your plans a reality by putting them into real actions.

This phase encompasses the previously completed actions and plan execution. Plans are built up and implemented after risk discovery.

-Tracking Monitor:

All required actions are closely more observed.

This step is crucial because it's necessary to get rid of and lessen the identified risk.

-Control:

Correct errors and make modifications when needed.

Put the proper item within the correct location, and therefore the needed field will update to any reflect the changes.

-Communicate:

Speak about existing and prospective dangers, furthermore as the way to pander to them. That need effective communication between developers and testers regarding the software's hazards.

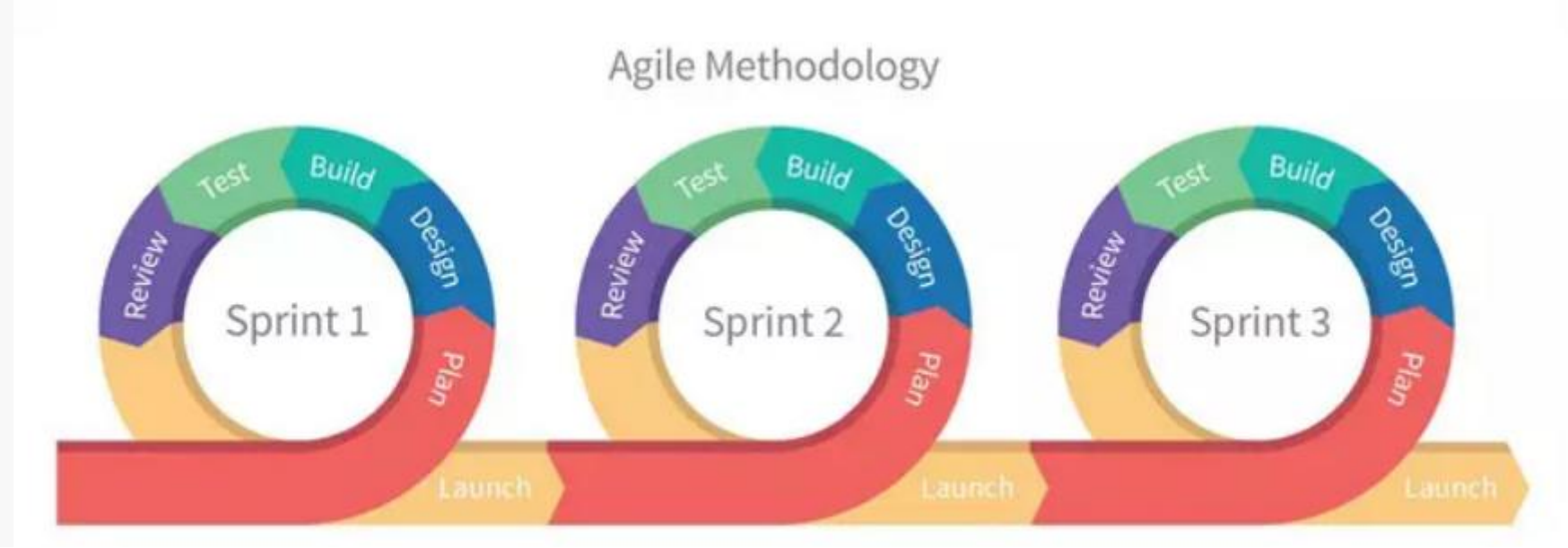
2. How is risk managed using us agile lifecycle model?

By searching any risk in us projects

-Focus: have clearly vision on what cause issue

-Sprint: do project over and over again to detect risky

((https://itzone.com.vn/en/article/agile-model/, n.d.), n.d.)



Stage 1: Analyze project (Review & test)

Stage 2: Development project (Build & desgin)

Stage 3: Implement (Plan)

Stage 4: Evaluation system (Caculate risk)

Sl.	Risk (Identification of expected Risks)	Description	Probability	Impact	Risk Factor (RF= P x I)	Risk Category	Response plan
1	Not enough risk management	Risk management that isn't up to can happen at any time. Risks in software projects are not properly and precisely defined.	70%	50%	35%	Medium	Demanding that when the project is being developed, funding and human resources are not in short supply.

2	Production risky	When do project, sometimes risky can happened	40%	89%	45%	high	Test production needed
3	Documentation	Helpful for workers on how it working	5%	50%	30%	low	Saving necessary information
4	Project delay time	Time cost money	10%	50%	40%	low	Time management for workers for plan

5	Stolen Information	Security system working not properly	1%	40%	35%	low	Rent Seniour developer for detect vulnerabilities on project

Risk	Content	Impacts/ Priority	PIC	DeadLine	Status	Prevention Plan
Will the plan work as expected	Tune Source Plan	4	Business	Before the plan will successful	Not yet	Find out why one of the plans cannot work or is ineffective
Project sponsor is short of money	Tune Source Plan	4	Project sponsor	Before the plan will successful	Not yet	Borrow or take some, for other risk money from other place
No more specializing music in hard-to-find	Tune Source Plan	2	Business	Before the plan will successful	Not yet	Find more, that we expect

Mistaken calculation	Tune Source Plan	3	Business	Before the plan will successful	Not yet	More accurate calculations, purchase more equipment for the calculation
Business Requirements and Need not completed	Tune Source Plan	3	Business	Before the plan will successful	Not yet	Need someone to support them
Tune Source is a big company. But very few or few Businesses do not want to work on new projects	Not in Tune Source Plan	4	Company	Before the plan will successful	Not yet	Maybe the company pays for business too low, or crazy plans people do not want to participate

No one is a leader, or company leader is ineffective	Not in Tune Source Plan	4	Project sponsor	Before the plan will successful	Not Yet	Recruit experienced people to work as leaders
Customers are not satisfied, do not come to buy, destroy Web or instore kiosks,	Not in Tune Source Plan	4	Business	Before the plan will successful	Not yet	Ask customers' opinions, denounce the law on destructive behavior of some individuals
More costs need from Risk	Not in Tune Source Plan	5	Project sponsor	Before the plan will successful	Not yet	Pay, take more money
Because there is not enough money for risk	Not in Tune Source Plan	5	Project sponsor	Before the plan will successful	Not yet	The best way is to make an easier plan already
						available for the cost of risk

3. Which is most suitable model for Tune Source and discuss why?

When new modifications must be introduced, the Agile methodology is best ideal.

The model's adaptable freedom, which has resulted in transformation, is critical. Due to the rapidity with which new increments are formed, new adjustments may be introduced at a relatively minimal cost.

It takes days, if not hours for engineers to go back and swiftly install a new feature.

P3. Explain the purpose of a feasibility report.

1. Feasibility report

(https://www.cleverism.com/conduct-feasibility-study-right-way/, n.d.)

A feasibility study may be a document that assesses variety of possible solutions to an issue or business opportunity and concludes which are viable for further investigation or resolution. to work out if the planned initiatives are viable.

Viability report writers assess the feasibility of several alternatives before recommending the most effective answer. They then give their firm the feasibility study and make their recommendations.

2.The purpose of a feasibility report

To determine the feasibility of solutions and project to choost best option solution.

The feasibility report's goal is to explain the project's parameters and offer viable solutions to the matter, need, or opportunity that has been recognized. After analyzing a spread of prospective solutions, the project team elaborated on each of them, providing enough detail, including extremely high cost information, to permit the project leader to propose a project foundation.

All feasible solutions that require to be further investigated within the following step are approved by the agency (Business Case). The feasibility of a project are determined by a spread of criteria, including project restrictions and budget limits.

Example:

-How us business can find the risk ?

-How we can avhieve the goal that founders set out for us ?

Feasibility studies typically focus on the following requirements for development:

-Technical feasibility:

I think the technical feasibility is quite high. Because with an annual growth rate of 3-5%. And how to take care of customers to make customers happy when using their services because they have successfully met the user's requirements.

It meets the technical needs of the system hosted by a famous Internet service provider (ISP) in Los Angeles. The IT department at Tune Source has become experienced with Internet technology when they have worked with ISPs to maintain the site.

With that technology available at this time, it can do that
Configuration of the system is considered to be very important compared to the reality of hardware while examining technical feasibility.
But with this short exercise did not show all the information on how to deal with risks.

Example for Technical Feasibility about Tune Source: is trade in copyright music, to profit from selling copyrighted music

-Economic feasibility:

It depends on context. In general, it means whether a business or a project is viable and logical. Economists calculate the economic viability by analyzing the cost and revenue that a business will incur by implementing a certain project.
The product cost depends on the investors who apply for that product according to market requirements and ensures that there is no loss of investment capital for selling music sold by Tune Source.

There are sponsors for the Project such as Project Sponsors: Carly Edwards, Assistant Vice President, Marketing
-Organizational feasibility:

A definition of corporate and legal structure of the business. This may include information about the founders, their professional background and the skills they need to get the company started and maintained.
I think it is possible to do it completely, because I think there is no problem
Strict organization like System requirements for business ***Business Need: This project has been initiated to increase sales by creating the capability of selling digital music downloads to customers through kiosks in our stores, and over the Internet using our website.***

P4. Describe how technical solutions can be compared.

There some solutions

--Choose Programming language to write in projects

Create 3 alternatives solution(programming languages in this case) and compare them.

Evaluation criteria Technical feasibility	Python	JAVA	C++
Advantage: (+)			
The software runs smoothly and efficiently	10	8	9
Disadvantage: (-)			
Error when coding	5	6	4
Organizational feasibility (-)			
Any problem with code???	0	1	3
Total	5	2	2

With Alternative Matrix, Python code is best for Coding.

Because Python works very well: smooth running, very few errors occur, so it is very suitable when coding in Tune Source Company

Target:

-Budget

Budgeting is critical in project and planning management since it allows you to avoid excessive costs and assign the right amount of money to each necessity.

This will go a long way toward assuring that the project's success.

-Performance

To guarantee that the program performs effectively when subjected to heavy loads such as Tasks and functions

The purpose of performance is to identify and eliminate performance bottlenecks, not to locate flaws.

It assesses the system's quality qualities.-Effeciency for get better result

-System

Need upgrade for

>Give Higher security standards

>Reduce maintenance costs emlimation and human errors

--For book selling, we using ‘Word Press’ with Search Engine Optimization tool with good enough security

(https://wecan-group.com/Tai-sao-dung-Wordpress-thiet-ke-website/, n.d.)

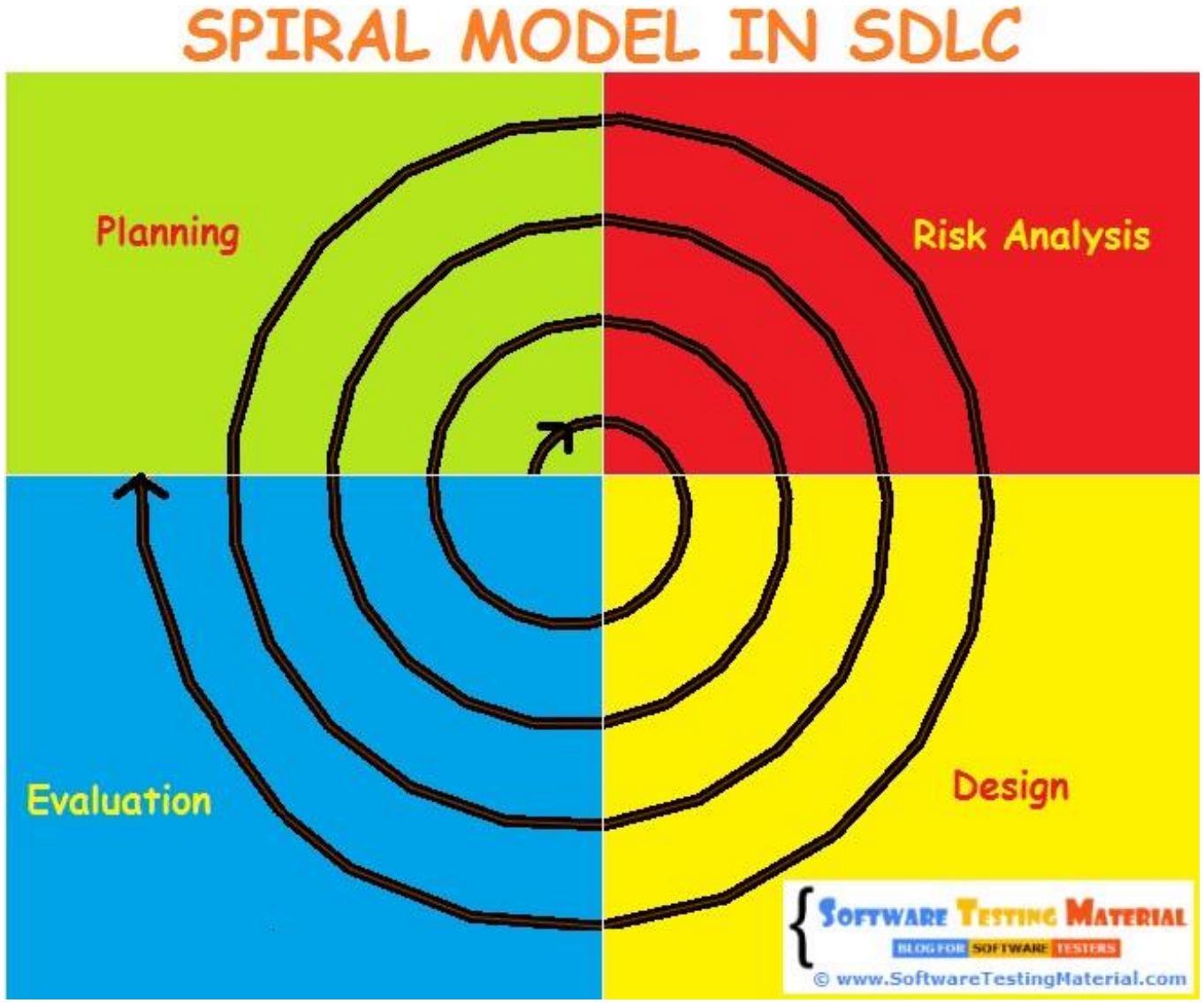
A software use with MySQL and Database has plugin and template with great security

> Search Engine Optimization

(https://gtvseo.com/seo-la-gi/, n.d.)

It’s The technique of increasing the quality and quantity of search engine traffic to a website or a web page is known as search engine optimization. SEO targets unpaid traffic rather than direct traffic or paid traffic

- M1. Describe, with an example, why a particular lifecycle model is selected for a development environment


SPIRAL MODEL IN SDLC
Planning
Risk Analysis
Evaluation
Design
SOFTWARE TESTING MATERIAL
BLOG FOR SOFTWARE TESTERS
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Because:

1. Because Tune Source is a company based in southern California. Tune Source is the brainchild of three businessmen connected with the music industry: John Margolis, Megan Taylor and Phil Cooper. So I'm sure it's a very big company, so choosing Spiral Model is very suitable for a very big company like Tune Shop, because of the characteristics:

Very suitable for large scale projects of high risk and risk reduction, handling changes in project implementation, controlling risks at each stage of development

As conservative estimates of tangible value for the company include:

$ 757,500 revenue from personal music downloads

$ 950,000 revenue from customer registration

$ 205,000 in selling more CDs at a store or website

$ 153,000 in revenue from gift cards for music downloads

A huge asset value so it is easy to have high risks.

2. Because in the Scenario of Tune Source there is a mention of a change in Customer Requests continuously such as:

• Many of our current loyal customers have requested this capability and we need to provide this service or face the loss of these customers.

• Because customers have some music download options available to them elsewhere, we need to bring this system to market as soon as possible.

So using Spiral Model is very beneficial for this project because of the characteristics of Spiral Model:

Allowing changes according to the requirements for each spiral ring, evaluating charges more accurately than other methods, circles are repeated in response to user changes.

-M2. Discuss the components of a feasibility report

I think every function is useful.

Feasibility report:

1. Feasible about making Web and Kiot shops so customers will be able to search and buy digital music downloads.

2. Enough financing for Tune Source to operate thanks to project sponsors like Carly Edwards, Assistant Vice President, Marketing 3. About

organization from very tight formally like

***Tune Source will increase sales by allowing existing customers to purchase specific digital tracks and by reaching new customers who are interested in our rare and hard-to-find music store.

We hope to gain a new source of revenue from customer registration to our download services. We hope to have some increase in cross-selling, because customers who have downloaded one or two CDs decided to buy the entire CD in a store or through our website.

We also expect a new source of revenue from selling music gift cards. ***

-D1. Assess the merits of applying the Waterfall lifecycle model to a large software development project.

Choosing the Waterfall Model is very suitable for a large software development project like Tune Source because:

Easy to use, understand and manage for large software like Tune Source

High demand for documentation: It acts as a template for establishing analytical, design, code and maintenance methods. Each stage in the Waterfall model has a starting and ending point, making it easier to share work progress with stakeholders like Tune Source:

*** Search for music in our digital music archive.

For customers Listen to music samples.

Buy a personal download with a fixed fee for each download.

Set up a customer registration account for unlimited downloads with monthly charges.

Buy music download gift cards. ***

If the focus group and the process of understanding customer requirements and design before coding, can reduce the risk of not responding to the Tune Source tasks' deadlines such as:

*** Tune Source will increase sales by allowing existing customers to purchase specific digital tracks and by reaching new customers who are interested in our rare and hard-to-find music store.

TuneSource's music store for music is rare and hard to find as an asset that is currently not used properly. *** Therefore,

the model stages are processed and completed each time. The phases do not match.

-D2. Assess the impact of different feasibility criteria on a software investigation.

-Technical feasibility:

About storing music copyright by ISP service in Los Angeles. It is totally technically feasible, because there are IT departments with experience with Internet technology to maintain the Internet for them Websites to trade copyright music in TuneSource -Economic feasibility:

Financially, there is a high possibility of paying enough because there are 3 sponsors: Carly Edwards, Assistant Vice President, Marketing. But when there is a risk, it is necessary to have more financial resources to pay

-Organizational feasibility:

About the feasibility of the organization, it's quite okay. Because of the sponsors, it is still unclear about organization. But I don’t know it enough for Project Tune Source working or not .