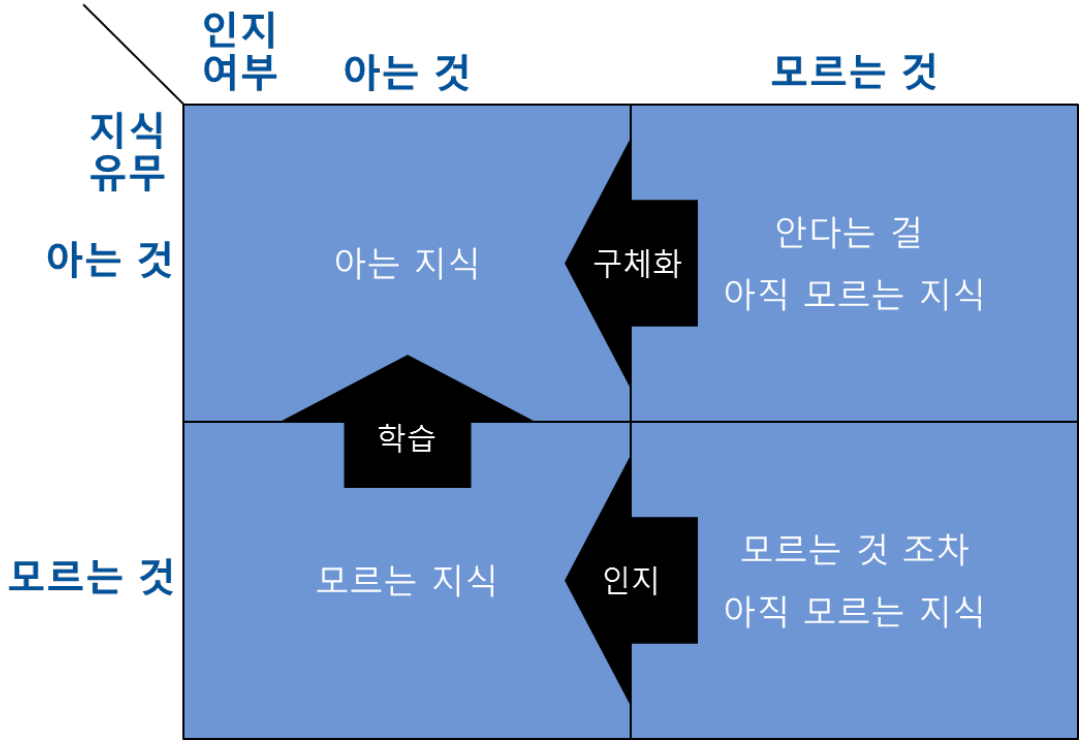
Microservice Architecture

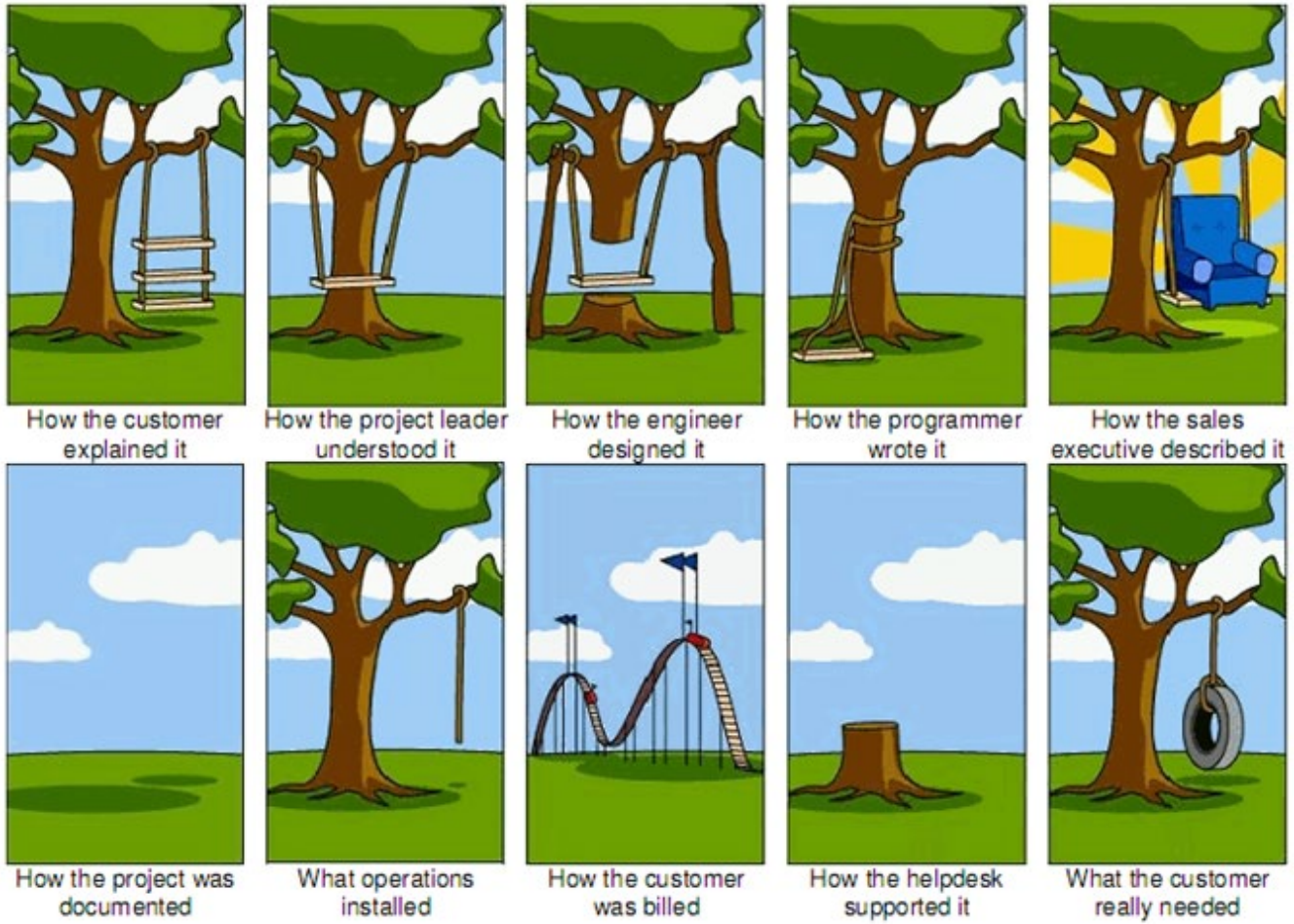
경북산업직업전문학교 [1-SEP-2022]

지식의 인지구조

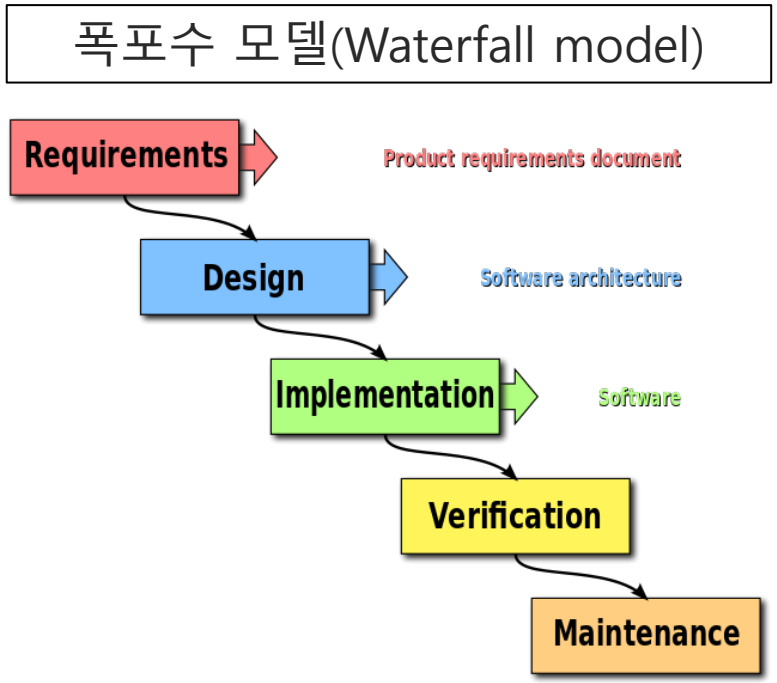


출처: 게임으로 즐기는 소프트웨어 이야기(김자희•정소라)

폭포수 모델 프로젝트의 현실



Source: projectcartoon.com



전통적인 폭포수 모델기반 개발 절차의 부작용

- 납기일 전 철야
- 철야에도 불구하고 납기일 지연
- 지연에 따른 비난과 스트레스로 개발자 에너지 소진
- 결국 납품된 솔루션은 고객의 요구를 충족하지 못함

Project Management Institute.

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및 프로젝트관리 표준서

애자일 프로젝트 방법론

그림 2-8. 반복형 및 증분형 개발

그림 2-10은 증분형 개발방식의 생애주기를 보여준다. 이 예시에는 계획, 설계 및 빌드라는 3번의 이터레이션이 있다. 이후의 각 빌드들은 초기 빌드에 기능을 추가하는 것이 될 것이다.

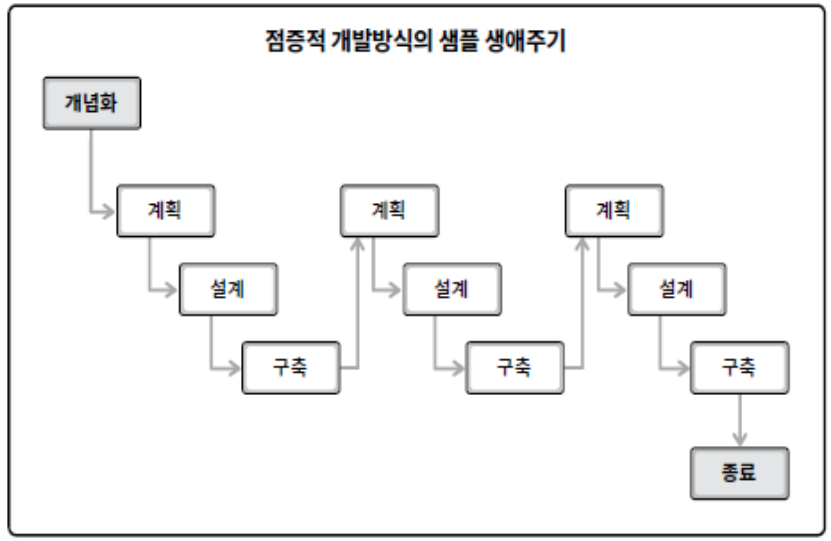


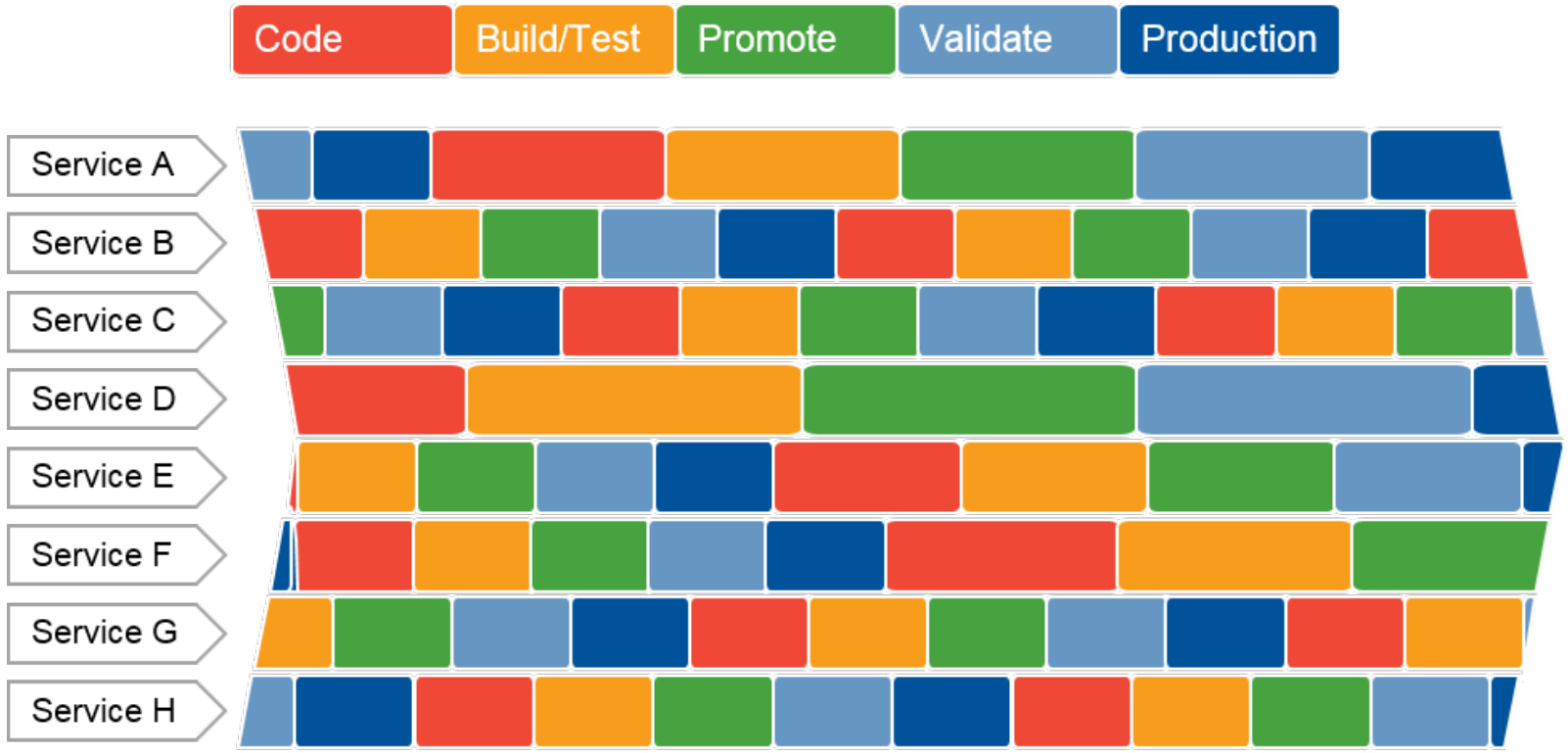
그림 2-10. 증분형 개발방식의 생애주기

Assess Potential MSA Value Based on the Business Demand for Change

Nature of Demand	MSA Is a Better Choice If …	Traditional Application Approach Is Preferable If …
Change Cadence: Continuous Versus Infrequent	The business continually demands new functionality or changes to functionality.	Demand for new application change occurs only periodically.
New Business Domain	The new business domain is well-understood and can be modeled with a high degree of confidence. If the new domain is not well-understood, start with a simpler, monolithic architecture, and iterate to identify where MSA may make sense.	The new business domain model will emerge as the software implementation iterates. A traditional approach will help the model emerge faster; however, as it is better-understood, be ready to apply MSA where appropriate.
Change Predictability: Scheduled Versus Volatile	The nature and timing of functionality demands are erratic and difficult to predict.	Functionality needs arise in discrete, predictable and, often, sizable chunks.
Ongoing Changes to Deployed Systems	There is no definition of "done" — deployed functionality is constantly changing and evolving over time.	Projects are more likely to be deployed into production, with minimal future changes, aside from routine maintenance.
User Appetite for Change	Changes can be readily absorbed by the user community without disrupting their work or causing undue need for training.	Users will likely need training on the system with each new version release, and/or each change will likely pose a learning curve that temporarily inhibits productivity.

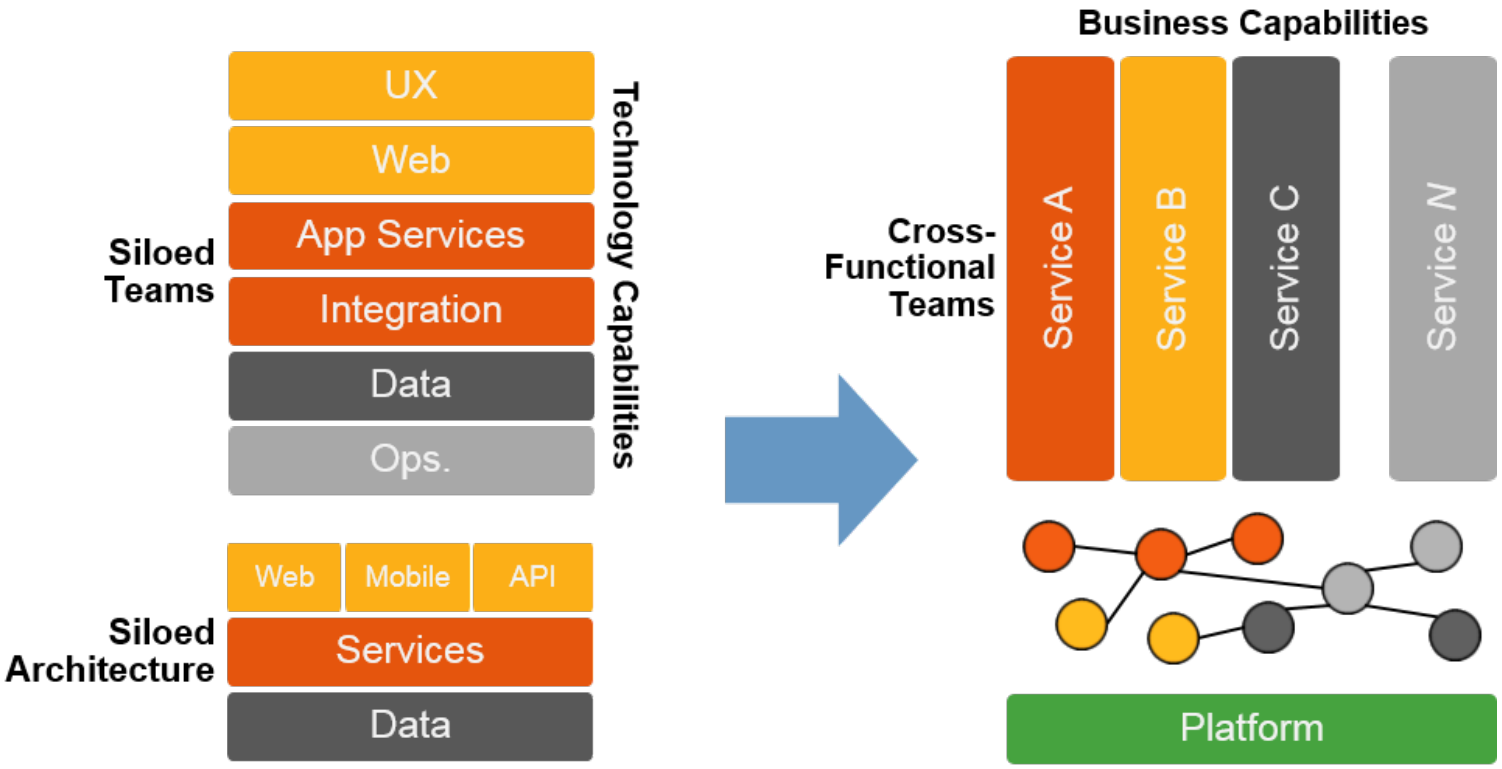
Source: Gartner

Microservice Delivery Through Fluid, Parallel Release Schedules



Source: Gartner

MSA Team Organization Aligns With Business Rather Than Technology Capability



Source: Gartner