The Minimum Viable Product (MVP)

CS-370: Software Design and Development

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What is a Minimum Viable Product (MVP)?

- A Minimum Viable Product (MVP) is a detailed specification and a guide for the software development team.

- The MVP defines the features and functionality – the deliverables – which will be present in a software product.

- Strategically, the MVP also serves as an agreement between all of the stakeholders.

- Typically, the stakeholders are the customer (or client) and the company (or consultant). Alternately, stakeholders could refer to employees within a single corporation: one team is delivering a product to a second team within the company.

- *TIP: As a former, full-stack software consultant for multiple companies, defining an MVP is critical! Once the MVP is complete and the client and I agree on the deliverables, I get to work. Sometimes the client will later request new features. In such cases, I explain that those features were not part of the original, agreed-upon MVP but can be negotiated with a new contract and a new MVP (at additional cost to the customer).*

What are the benefits of an MVP?

- Prioritization: the MVP forces the stakeholders – the customer (or client) and the company (or consultant) – to prioritize and agree on what will be included in the deliverable, final product.

- The MVP is a static document that, under normal conditions, does not change once development of the product begins.

- Using an MVP is a beneficial way for stakeholders to avoid feature creep. Feature creep occurs when additional features or functionality is added to a project that were not part of the original deliverables agreement.

- *TIP: feature creep is a consequence of poor-project management and ultimately leads to project completion delays (time) and/or project cost overruns (money). How does your team avoid feature creep? Let the MVP guide you (i.e. if it is not in the MVP, it will not be added).*

The Moscow Method

- The Moscow method is a project deliverables prioritization technique.

- The Moscow method can also be useful when determining the Minimum Viable Product (MVP).

- As an acronym, MoSCoW stands for:

  - **MUST**: First priority deliverables which MUST be included in the project.

  - **SHOULD**: Second priority deliverables which can be included once all first priority deliverables are completed.

  - **COULD**: Third priority deliverables which can be included once all first and second priority deliverables are completed.

  - **WON'T**: Optional deliverables which will NOT be include in the current project.

Does the MVP represent the final product?

- It is really up to the stakeholders to determine this.

- For example, an MVP (Minimum Viable Product) could represent a prototype if the company (or consultant) is seeking feedback from the client (or customer) during the development phase of the product.

- With customer feedback, the company or consultant gets immediate (and possibly insightful) feedback. This creates a feedback loop and implies an iterative process for product development.

- *Warning: the customer feedback loop and the iterative process can become a seemingly, never-ending development cycle without a completed product. Alternately, the client may perceive the prototype as the completed product. Consequently, the customer or client may be disappointed.*

Deliverables versus Requirements

- Deliverables and requirements (in the context of "requirements gathering") are effectively synonymous.

- When listing the deliverables (or requirements) in an MVP (Minimum Viable Product), the most important question to answer is:

  - *What* will be achieved?

- When I perform Requirements Gathering, I ask myself:

  - *How* will those deliverables (in the MVP) be implemented?

How do we determine the MVP for CS-370?

- I suggest reading the CS-370 Programming Assignments one through four on Canvas:
    - Read the specifications I have outlined in the assignment guidelines.

- Note: The grading rubric might be more appropriate during the requirements gathering phase since it addresses the "how".

- *TIP: In the corporate world, you won't have the luxury of grading rubrics and programming assignments to guide you in development of a Minimum Viable Product. Instead, you will need to interview the client (or customer). You will need to determine which deliverables are essential and in what time-frame. This implies a sort of phased roll-out of the deliverables. The Moscow Method will help here to prioritize the phased (staggered roll-out). Other factors which will impact your MVP will be the client's (or customer's) budget, the client's (or customer's) deliverables deadlines (time), and your own (or your team's) timeline. These factors are all negotiable but require a lot of communication. Once the stakeholders all agree on the deliverables and the timeline(s), the next step is to write up a document stating these deliverables: the Minimum Viable Product (MVP). In such cases, you would also likely include a timeline when these deliverables will be rolled-out too.*