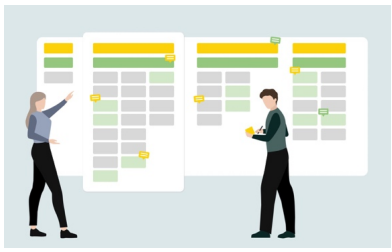
3.3.1 User Story Mapping

- *Aim*



User Story Mapping (USM) is a visual exercise that aims to support product managers, and their development teams define the work that will create the most delightful user experience. It is used to improve teams' understanding of their customers and to prioritise work. In user story mapping, teams create a dynamic outline of a representative user's interactions with the product, evaluate which steps have the most benefit for the user, and prioritise what should be built next. For agile organisations, it provides an alternative to building a flat list of backlog items or working from lengthy requirements documents.

- *Description*

Software leader Jeff Patton is often credited with having developed and shared extensive knowledge around user story mapping. USM employs the concept of user stories – which communicate requirements from the perspective of user value – to validate and build shared understanding of the steps to create a product users love. Teams write user stories in a format that captures business value and can be completed within a development iteration (usually called a sprint).

- *Key Features*

USM starts with a decision about what medium to use for building the story map. It can be done with simple physical resources – such as a wall or whiteboard and sticky notes – or with a variety of software tools that are available to create a virtual map. Virtual planning may be helpful for distributed teams. Regardless of the medium, teams will want to take the following steps:

  - Frame the Problem – What is the problem your product solves for customers, or what job does it help them do? Taking a goal-first approach is critical in mapping the work that follows, and teams need to ensure they are mapping the customer's goal. This is true even if teams are building enhancements to an existing product. The user story format (As a [type of user], I want to [action] so that [benefit].) can be helpful in thinking about product interactions from a user's perspective.
  - Understand the Product's Users – Who is the target audience for your product? There is likely more than one. Different audiences can have different goals and ways of interacting with your product. Starting this exercise with a set of user personas can ensure that teams share an understanding of the target audience and build stories from that point of view. It also eliminates wasted effort on edge cases that are not a fit with your target audience.

- Map User Activities – All users who interact with a product will likely do so through a series of common activities. These activities — also referred to as themes or functions — form the backbone of the user story map. For example, users of an ecommerce product may want to search items for sale, view items by category, put items into a shopping cart, and complete a purchase. These activities will comprise the stories across the top of the map, which the team will then break down into smaller user stories.
- Map User Stories Under Activities – With the backbone in place and major themes defined, the team can now build out the skeleton of the map by breaking down each activity or theme into smaller user stories. For example, under the shopping cart activity, there might be stories like, "As a shopper, I want to edit and delete items in my cart so I can change my mind before I purchase."
- Flow and Prioritise – With the high-level themes and detailed user stories in place, the next step is to prioritize stories, ranking them vertically so that the most important ones are at the top. Then, teams map how users flow through the product — typically from left to right. If a product has multiple types of users, teams may want to map different scenarios for each. These actions help teams decide which stories are vital and which ones are less important to delivering a delightful product experience to the target audience(s).
- Identify Gaps, Dependencies, Technical Requirements, and Alternatives – The story map gives teams the ability to envision upfront the potential issues that may slow them down later, such as bottlenecks, dependencies, technical architecture, or missing information and capabilities. Identifying these risks before design or development work begins can help teams minimise and mitigate them, enhance usability, and come up with alternative solutions.
- Plan Sprints and Releases – This is where teams turn a visual exercise into executable work. With stories prioritised from the top down, teams can see the work that will deliver the most value in the shortest time and group these stories into development sprints and product releases. Teams will create horizontal "slices" across the map, grouping stories by priority within each critical user activity. It is important to consider that this is not about identifying what is required for a minimum viable product; rather, it is critical for identifying the most important work to be completed to create a delightful customer experience.

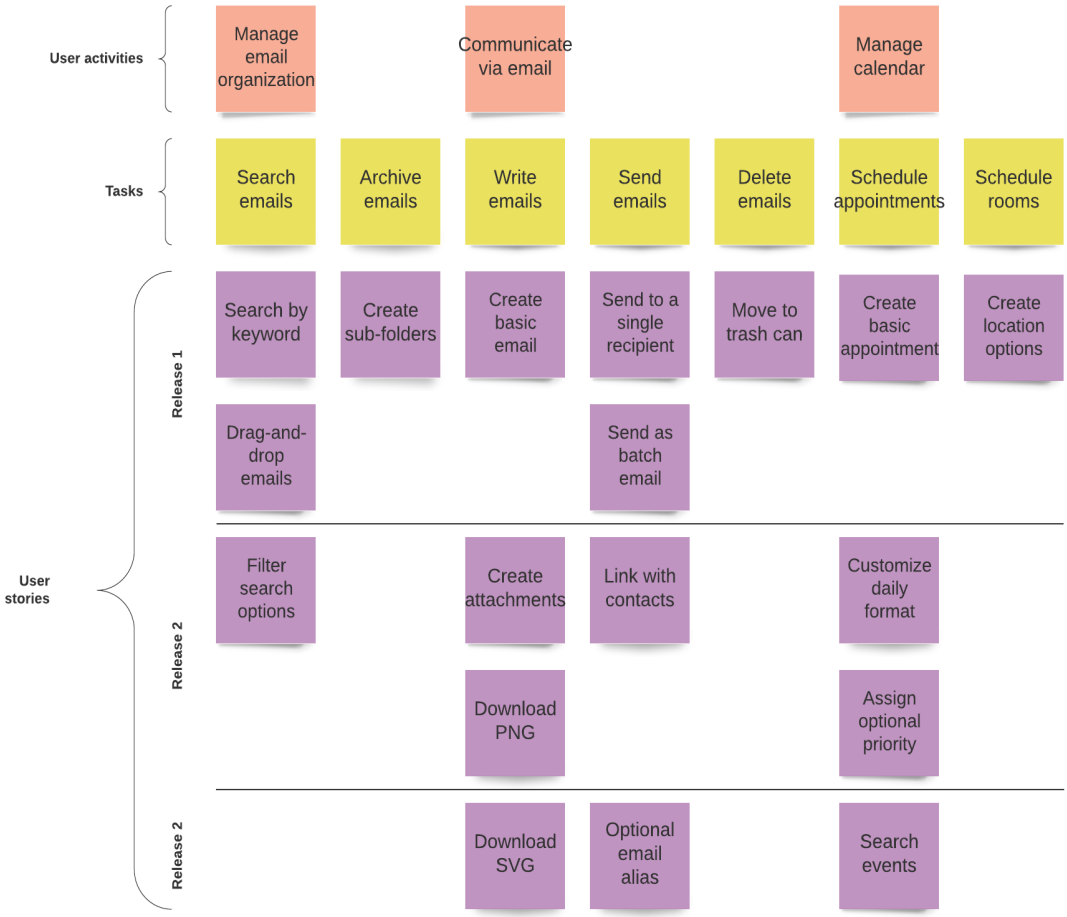


Figure 19: A View of USM Tool

- *Benefits*

The following are some of the ways that story mapping helps teams improve their processes for building products users will love.

Figure 20: Benefits of USM

- *Implementation*
    - Describe the Purpose/Problem Definition
        - ***General Overview:*** the teacher should start by explaining by the problems that USM solves. In the talk Essentials of Agile User Story Mapping at Twitter John Walpole gives an anecdote of what happened at Twitter when there was a poor understanding of what to build, and how USM would have been prevented. The teacher should tell this story or perhaps come up with a different story from their own experience.
        - ***Classroom Activity:*** The teacher should ask the students if they have ever experienced a situation where the wrong product was built, or

perhaps the students know a situation where this happened in products that they're using.

- Implement the Tool
  - ***General Overview:*** In this step, the tool should be implemented. This means that the students will apply the tool on a specific problem. Specific instructions should be given by the HE teacher for students to proceed with this activity.
  - ***Classroom Activity:*** Once the purpose and problem are clearly understood by everyone, we can start implementing the tool. The HE teacher should instruct the students to make groups. Each group should come up with a product they would like to build. Then the groups should apply USM to gain common understanding of the product and its features they want build.

- Collect Data after Tool Implementation
  - ***General Overview:*** After implementing, each group should extract the main features that were decided on in their USM session.
  - ***Classroom Activity:*** Each group should present their USM to the classroom. Here it is important that both the main features are presented, but also the timeline in which each feature is to be implemented. The students should also state what is the priority of each feature and why was it decided to prioritise certain features?

- Analyse the Data and Reflect on the Outcome
  - ***General Overview:*** Once data is collected, it's important to reflect on the outcomes.
  - ***Classroom Activity:*** The teacher should give feedback on each USM. There's often not a single right approach, so it is important to ask for the motivations between each decision. Together with the rest of the class, improvements should be discussed. To be clear, it is not only teachers that should give feedback. This should be a collaborative process.

- *Examples of Organisations using USM*

Real-life examples should ideally drive every concept. Here are some of the examples of big corporate giants:

Twitter is using User Story Mapping to clarify the needs of users and create common understanding in their teams.	
Amazon uses User Story Mapping to be sure to always prioritise the right tasks. After adopting this method, less time was spent building low priority features that customers were not really waiting for.	

Table 10: Examples of Organisations using USM

- *Additional Examples on the Use of USM Tool*

  Following are specific resources to understand USM in more detail e.g., relevant articles.

  - Book and Articles:
    - User Story Mapping: Discover the Whole Story, Build the Right Product – Link
    - Towards the Definition of Domain Concepts and Knowledge through the Application of the User Story Mapping Method – Link
    - User Story Mapping-Based Method for Domain Semantic Modelling – Link
    - The User's Journey: Storymapping Products That People Love – Link
    - Digital story mapping to advance educational atlas design and enable student engagement – Link

- *Links to General Learning Resources*

  Following are general resources to understand TBL in more detail e.g., links to YouTube video clips.

  - YouTube Videos:
    - Essentials of Agile User Story Mapping at Twitter – Link
    - How to do User Story Mapping – Link
    - Agile Product Backlog with User Story Mapping – Link
    - How to Create a User Story Map to Make Customer Focused Roadmaps – Link
    - How to Create a User Story Map – Link