# Capstone Project

# Module 1

## Exercise 1: Define the project.

The Capstone Project is first and foremost a construction project by the USN to create a workspace at Campus Bø. This space will be a hub for both local companies and entrepreneurs as well USN's own students. Here, they get the chance to work beside each other and hopefully with each other in the future.

USN has approached us, as well as other teams, to provide the best possible solution for their website. Our team's project is to provide these three parties with a website which will serve as an allencapsulating looking glass into the workspace, accessible at any time. Through the copious documentation from USN, we aim to produce the best website in accordance with USN's wishes and constraints.

This project will require our team to establish a solid project leadership from the start. Through good planning and organising, we aim to streamline the project management processes, ensuring the project's quality at a faster pace.

### Exercise 2: Stakeholder analysis

# Potential Stakeholders:

### **University of South Norway (USN):**

- Interest: High interest.
  - Better facilities.
  - More actively used facilities.
  - Increased social and communal renown.
  - New revenue stream through membership and sale profits.
- Influence: High influence.
  - Project owner.
  - Financial control.
- Impact: High impact.
  - Has the ability to make changes or actions that could potentially inflict risks and delays.

#### **Students:**

- Interest: High interest.
  - Access to new facilities.
  - Networking with local companies in their respective fields.

- Access to platforms that can realise projects.
- Influence: Moderate influence.
  - Ability to express wishes to sympathetic parties, but have no real power to change.
- Impact: High impact.
  - They are a central stakeholder for the workspace.
  - Other stakeholders depend on their utilisation of the workspace and use it as intended.

### Local (non-student) entrepreneurs:

- Interest: High interest.
  - A favourable environment for startup development.
  - Networking with other stakeholders.
  - Access to better resources.
- Influence: Low influence.
  - Not the target group of this workspace, but can contribute to the co-working space's reputation as an entrepreneurial hub.
- Impact: High impact.
  - Not the target group, but is a user group that can have an effect on the workspace's reputation and sustainability.

# Local Enterprises (Revisorteam, YourCompanion, GreenEnergy, VismaAI):

- Interest: High interest.
  - Access to students and entrepreneurs who could become future employees.
- Influence: Moderate influence.
  - Ability to express wishes, but have no real power to change.
- Impact: High impact.
  - They are a central stakeholder for the project. Biggest financial stakeholder.

### **Local government:**

- Interest: High interest.
  - Driving more business to the city.
  - Engaging the local population in entrepreneurial activities.
- Influence: Moderate influence.
  - ?
- Impact: High impact.
  - Could possibly impose constraints which delays the project

### **Regional unaffiliated Residents:**

- Interest: Moderate interest.
  - Job opportunities
- Influence: Low influence.
  - Not the target group of the workspace

• Impact: Low impact.

# Potential conflicts between stakeholders:

### Space availability:

- Potential Conflict:
  - Limited private offices and meeting rooms available.
  - Limited space of the open workspace.
  - Limited dining area.
  - Limited lounge area.
  - Limited game room area.
- Proposed resolution Strategy:
  - Regular communication to manage expectations.
  - Consider flexible office arrangements and prioritize based on membership seniority.
  - Implement system features that requires any given user to state why he/she
    wants to use the space and which facilities he/she intends to utilise. Through
    this, we can maximise the amount of people we can admit pr. Day without
    any unnecessary conflict.

### Membership options & pricing:

- Potential conflict:
  - Proposed pricing doesn't reflect the user's purchasing power.
  - Rigid membership options.
  - Few memberships options.
- Proposed resolution Strategy:
  - Consider lowering/increasing certain prices.
  - Create more membership options.
  - Expand the already existing membership options to include different prices based on different timespans for different type of user groups.

### Workspace dynamic:

- Potential conflict:
  - Noise complaints (Game room, lounge area and open workspace)
  - Smell complaints (Kitchen)
  - Cleanliness complaints (All rooms)
- Proposed resolution strategy:
  - Set clear rules and guidelines for etiquette.
  - Provide a place where users can inform USN Start of any complaints.

### Differing Work Preferences:

- Potential Conflict:
  - Divergent needs of individual students, entrepreneurs, and companies.
- Proposed resolution Strategy:
  - Design flexible spaces.
  - Conduct regular surveys to understand the evolving preferences and adapt the environment accordingly.

### Community Engagement:

- Potential Conflict:
  - Low engagement from local companies.
  - Low engagement from students.
  - Low engagement from local entrepreneurs.
- Proposed resolution Strategy:
  - Develop community outreach programs.
  - Host events.
  - Establish an active social media presence.
  - Communicate the benefits of the co-working space for regional development.
  - Consider partnerships with local government and/or local companies.

### Exercise 3 Project management areas

## We need to plan:

- Define project goals
  - Concrete?
  - Measurable?
  - Realistic?
  - Timespan?
  - How ambitious?
- Group work management
  - Work distribution
  - Meetings
  - Quality control

- The website
  - Design
  - Features
  - Information
  - Content
  - Usability
  - Test and development
  - Sustainability
- Marketing
  - Social media
  - Branding
- Launch and maintenance

# Exercise 4

STRENGTHS	WEAKNESSES
<ul> <li>HTML &amp; CSS</li> <li>Team communication and cooperation</li> <li>Motivation</li> <li>Eagerness to learn</li> <li>Personal network</li> </ul>	<ul> <li>Limited work experience</li> <li>Limited education</li> <li>Lack of technical skills</li> <li>Workload management</li> <li>Negative personality attributes</li> <li>JavaScript</li> </ul>
OPPORTUNITIES	THREATS
<ul> <li>Personal and academic         development</li> <li>Building personal network and         relationships</li> <li>Learning to work as a team.</li> </ul>	<ul> <li>Time management</li> <li>Project comprehension</li> <li>Limited access to training and education</li> <li>Internal disputes</li> </ul>

# Module 2

### Exercise 1

Completed!

Link: ???

### Exercise 2

# **Business Objectives:**

Create a vibrant website for the USNStart coworking space at USN Campus Bø, catering to students, entrepreneurs and professionals in the region. Attract individuals and teams from larger companies in the city who seek a flexible and inspiring workspace. Foster a supportive community that encourages networking, knowledge sharing, and collaboration among members. Provide a range of membership options to accommodate different needs and budgets. Increase visibility and awareness of USNStart coworking space to attract potential members.

# **Project Deliveries:**

Development of a dynamic and engaging website for USNStart Coworking Space. Creation of a visually appealing website that conveys the core value and unique features of the coworking space, design and implementation of a desk booking system for members to reserve workspace. Integration of privacy and security measures to protect user data. Implementation of a responsive website accessible on various devices. Inclusion of high-quality visuals, showcasing the interior, amenities, and facilities. Provision of clear and comprehensive information about membership plans and pricing. Coordination with stakeholders for feedback and review throughout the project.

#### **Project Exclusions:**

Though we hope to deliver on various Backend features as stated above, we recognise that we are only required to deliver a static website. We believe that we have managed our time in accordance with obtaining the necessary skills to implement the backend features, though these might have to be excluded.

#### **Constraints:**

Time constraint: The project must be completed within the timeframe of January 2024 to April 2024.

Budget constraint: The project should be implemented within the allocated budget for development and hosting.

Resource constraint: The project team consists of four developers, and their availability and expertise may impact the project timeline and deliverables.

Stakeholders: Mitigating disagreements among students, organizations and USN. Navigating technical challenges with the USN system stand as substantial hurdles in the development of the START USN project.

### **Assumptions:**

By making the USNStart Coworking Space website user-friendly and attractive, using an easy-to-use desktop layout system, and promoting collaboration with stakeholders, we hope to increase the number of educational, professional, and business institutions in the region. We believe that creating a fun and supportive community, with multiple membership renewal options, will help USNStart Coworking Space be more successful in attracting and retaining members. Furthermore, we are confident that, based on time, budget and challenges presented, the project will be successfully completed by given timeframe.

# Exercise 3: Project success criteria

### Does this list reflect needs from all relevant stakeholders?

The project description and USN's wishlist does have many criterias that are conceivably important for multiple stakeholders. We believe that they give us an introductory insight to what features the website should include and how it should be designed. These two documents reflect most needs of all relevant stakeholders, but each bullet-point could be further refined.

### Are these "wishes" clear enough to guide the management and development of the project?

The wishlist is a good starting point but there are some important details that should be more specific. The visual design of the website and how the feedback/reviews work, and the booking system, just to name a few. More details around these topics would help to improve the development of the project and avoid possible future misunderstandings.

### What can the success criteria for this project?

The success criteria for this project can be increased visibility, good reviews, efficient booking system and visitors from their target groups. After the launch of the website, it can be a good idea to measure the traffic of the website and the number of members over time. Collecting reviews from the website and other forums can be a good way to see what people think about the project. To confirm that the booking system works as expected, with minimal error and minimal bad reviews from costumers is essential for the projects current and future success. With a non-functioning system, it can lead to bad reviews which could have dire affects on the overall result. Another success

criteria for this project is whether the project reached the target groups they aimed for. Measuring the number of costumers from the target groups is essential.

### What can be a timeframe for your team? (4 members)

The timeframe for the project of four people depends on several factors like experience in the team, how complex the project is, and available recourses. The waterfall model is a development process that can be used in this case. Planning and design, development, testing and delivery and maintenance. Each of these stages have different timeframes. Planning and design could take around 2-3 weeks. In this stage you make your plan for the website's structure, design of the UI, and how the system should work. In the development stage you are coding the website with design specifications. This could take around 4-6 weeks. It is important to check that every component of software works as expected before you move on to the next stage. In the next stage, the software is tested as a whole to see if it works as intended without any issues. This could take around two weeks. After the software is approved and ready, it will be launched. This could take somewhere around a weeks' time. After the launch, maintenance is integral. When issues arise after launch, it is important to fix them to make sure the website continues to meet the requirements.

### Exercise 4: Requirement gathering and analysis

### Clear and engaging headline.

### 1. (Clear)

- Yes. USN's wish for a clear and engaging headline is clear and "to the point". We, as a team, would however encourage USN to stay consistent with as much of the design from other Start franchises, so not to create confusion. This entails making "Start Bø" the attention-grabbing entity whilst a short sentence underneath will communicate the core value of the coworking space.

### 2. (Consistent)

No. The team would not consider the headline consistent if it were to align with the Capstone Project Wishlist from USN. From our analysis of Start as a franchises, we believe Start Bø could in a sense "piggyback" of their already established value. In order to do this, we wish for USN to keep their headline in the same fashion as other Start franchises.

### 3. (Correct)

- No. We believe tests and further communication with USN would help finding the most apt headline. The correct headline, should in our opinion, be determined by the tests elaborated on in point 5.

### 4. (Unambiguous)

 Yes. We believe the headline is most unambiguous if it reflects the same values as other Start franchises. This contributes to the already established brand and eliminates possible confusion.

#### 5. (Measurable)

 Yes. The headline is measurable through the conduction of various tests measuring metrics of engagement. These will determine which headline has the highest contribution to interest-generation. We plan to conduct CTR tests, which will confirm which headline generated the most desirable interactions. Various surveys with A/B tests will also be conducted.

### 6. (Verifiable)

- To verify a headline, we ask ourselves if it properly reflects its intended traits. Is it clear? Engaging? Does it communicate the core values of Start Bø? We believe so, yes.

### Compelling visuals.

### 1. (Clear)

Yes. It is well documented that humans respond better to visual information, rather than words on a page. We aim to provide images and videos of the most prominent features of the workspace. We believe this contributes to the websites overall value, which in turn contributes to the workplace itself.

### 2. (Consistent)

- Yes. The media displayed on the website will be sourced directly from the workplace. We do this to add to the customers perception of the core value.

#### 3. (Correct)

 Yes. The media displayed on the website will be true to reality. We do this to add to the customers perception of the core value.

### 4. (Unambiguous)

- n/a

### 5. (Measurable)

 Yes. Tests and surveys could be conducted in order to determine which of the collected media people respond.

### 6. (Verifiable)

 Yes. We believe as long as the visual media displayed on the website remains clear, consistent and correct, it should therefore be verifiable as well.

### Membership plans and pricing.

### 1. (Clear)

- Yes. Both membership plans and pricing are clearly established.

#### (Consistent)

 Yes. The membership plans are consistent with their intended type of member and purpose.

#### 3. (Correct)

No. We believe that the membership plans should be elaborated on further and the
prices should be reduced. We see this hub not only as a workplace, but as a way for
students and prospective entrepreneurs to engage with people from established firms in
their respective markets. The prices set for each membership plan appears unrealistic for
the average Norwegian student and most entrepreneurs.

#### 4. (Unambiguous)

- No. We believe that the membership plans could be made even more unambiguous. They can be elaborated on and hopefully made more reasonable in terms of price and/or featured value.

### 5. (Measurable)

- Yes. Membership plans and pricing will automatically be measurable due to the database covering all members and their details. Among other things, we can extrapolate the flow of members gained, lost and retained, amount of members within specific plans, popularity, revenue, etc.
- 6. (Verifiable)
  - Yes. This can be verified by utilising and confirming all information published on all channels including the website.

#### **Amenities and facilities**

- 1. (Clear)
  - Yes. The available amenities and facilities are listed. The visual medias on the website will help conveying the information further.
- 2. (Consistent)
  - Yes.
- 3. (Correct)
  - Yes.
- 4. (Unambiguous)
  - Yes.
- 5. (Measurable)
  - Yes. Database, statistics,
- 6. (Verifiable)
  - Yes. Information.

### **Location information**

- 1. (Clear)
  - Yes.
- 2. (Consistent)
  - Yes.
- 3. (Correct)
  - Yes.
- 4. (Unambiguous)
  - Yes.
- 5. (Measurable)
  - n/a
- 6. (Verifiable)
  - Yes.

### **Testimonials and reviews**

- 1. (Clear)
  - Yes.
- 2. (Consistent)
  - Yes.

- 3. (Correct)
  - Yes. If verified...
- 4. (Unambiguous)
  - Yes, but shouldn't be.
- 5. (Measurable)
  - Yes, statistics.
- 6. (Verifiable)
  - Yes.

### **Contact information**

- 1. (Clear)
  - Yes.
- 2. (Consistent)
  - Yes.
- 3. (Correct)
  - Yes
- 4. (Unambiguous)
  - Yes
- 5. (Measurable)
  - n/a
- 6. (Verifiable)
  - Yes.

### **About us section**

- 1. (Clear)
  - Yes
- 2. (Consistent)
  - Yes
- 3. (Correct)
  - Yes
- 4. (Unambiguous)
  - Yes
- 5. (Measurable)
  - n/a
- 6. (Verifiable)
  - Yes

# Responive design

- 1. (Clear)
  - Yes
- 2. (Consistent)
  - Yes

- 3. (Correct)
  - Yes
- 4. (Unambiguous)
  - Yes
- 5. (Measurable)
  - Yes
- 6. (Verifiable)
  - Yes

# **Privacy security**

- 1. (Clear)
  - Yes
- 2. (Consistent)
  - Yes
- 3. (Correct)
  - Yes
- 4. (Unambiguous)
  - Yes
- 5. (Measurable)
  - Yes
- 6. (Verifiable)
  - Yes, as long as focus remains on security.

# Floor plan

- 1. (Clear)
  - Yes
- 2. (Consistent)
  - Yes
- 3. (Correct)
  - Yes
- 4. (Unambiguous)
  - Yes
- 5. (Measurable)
  - n/a
- 6. (Verifiable)
  - Yes

# Booking

- 1. (Clear)
  - Yes
- 2. (Consistent)
  - Yes
- 3. (Correct)

- Yes
- 4. (Unambiguous)
  - Yes
- 5. (Measurable)
  - Yes
- 6. (Verifiable)
  - Yes

### Rapport: Hva er problemene med hvert punkt:

- 1. Clear and Engaging Headline: The headline may not effectively communicate the unique value proposition of the coworking space, making it difficult for potential customers to understand what sets it apart from other options.
- 2. Compelling Visuals: If the images or videos of the coworking space are of low quality or do not accurately represent the actual space, potential customers may be disappointed when they visit in person. It's important to ensure that the visuals accurately showcase the interior, workstations, communal areas, and facilities.
- 3. Membership Plans and Pricing: If the membership options, pricing, and special offers are not clearly displayed, potential customers may find it difficult to understand the cost and benefits of joining the coworking space. The call-to-action button should be prominent and encourage visitors to explore the plans further.
- 4. Amenities and Facilities: If the key amenities and facilities are not clearly listed or highlighted, potential customers may not be aware of what the coworking space has to offer. It's important to emphasize what makes the space unique and stand out from other options in terms of amenities and facilities.
- 5. Location Information: If the location information is not clearly stated, potential customers may have difficulty finding the coworking space or understanding its proximity to public transportation or parking options. Providing a map and clear directions can help alleviate this problem.
- 6. Testimonials and Reviews: If there are no positive testimonials or reviews from current members, potential customers may be hesitant to trust the coworking space. Including real feedback from satisfied members can help build trust and credibility.
- 7. Contact Information: If there are not multiple contact options provided, potential customers may find it difficult to get in touch with the coworking space for inquiries or bookings. It's important to make it easy for potential members to reach out and ask questions.
- 8. About Us Section: If the brief overview of the coworking space's history, mission, and values is not compelling or unique, potential customers may not be motivated to join the community. It's important to highlight what makes the coworking space stand out and appeal to potential members.
- 9. Responsive Design: If the landing page is not responsive and mobile-friendly, potential customers who access the website on mobile devices may have a poor user experience. Ensuring that the website displays correctly on all devices and screen sizes is crucial for attracting and retaining potential customers.
- 10. Privacy and Security: If there is no section about data privacy and security, potential customers may have concerns about the safety of their personal information. Including information about privacy measures can help reassure potential members that their data will be protected.

- 11. Floor Plan: If there is no proposed floor plan or images of interior designs, potential customers may have difficulty visualizing the coworking space and understanding the layout. Providing visual representations can help potential customers make informed decisions about desk selection.
- 12. Booking: If the booking process for day passes or monthly memberships is not user-friendly or interactive, potential customers may find it difficult to reserve desks in the open workspace. It's important to have a clear and intuitive booking system that allows for easy selection and confirmation of desk reservations.

### Konverter listen til en liste over brukerhistorier:

- 1. As a potential member, I want to see a clear and attention-grabbing headline that communicates the core value of the coworking space, so that I can quickly understand the benefits of joining.
- 2. As a potential member, I want to see high-quality images or videos showcasing the interior, workstations, communal areas, and facilities of the coworking space, so that I can visualize the environment and amenities.
- 3. As a potential member, I want to easily access and view the membership options, pricing, and any special offers or discounts, so that I can evaluate the different plans and make an informed decision.
- 4. As a potential member, I want to see a list of the key amenities and facilities available in the coworking space, such as high-speed internet, meeting rooms, coffee lounge, and more, so that I can understand the unique features and benefits of the space.
- 5. As a potential member, I want to know the location of the coworking space, including the address, a map, and information about nearby public transportation or parking options, so that I can assess the convenience of the location.
- 6. As a potential member, I want to read positive testimonials or reviews from current members, so that I can gain trust and confidence in the coworking space.
- 7. As a potential member, I want to easily find multiple contact options, including an email address, phone number, and a contact form, so that I can easily get in touch with the coworking space for further inquiries or to book a tour.
- 8. As a potential member, I want to read a brief overview of the coworking space's history, mission, and values, so that I can understand the community's unique aspects and values.
- 9. As a potential m ember, I want the landing page to be responsive and mobile-friendly, so that I can access and view the content correctly on any device or screen size.
- 10. As a potential member, I want to see a section about data privacy and security, so that I can trust that my personal information will be protected when using the coworking space's services.

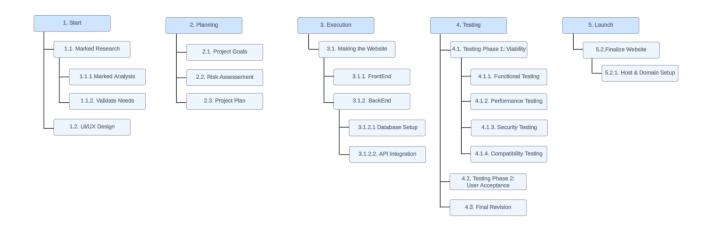
- 11. As a potential member, I want to view the proposed floor plan and images of interior designs, so that I can understand the layout and aesthetics of the coworking space.
- 12. As a potential member, I want to be able to book available desks in the open workspace with a daypass or monthly membership for the current month. I want to see a floor map where desk selection is interactive and visual and receive a confirmation after completing the reservation.

### Exercise 5: WBS

- 1. Start
  - 1.1. Marked research: Define requirements
    - 1.1.1.Marked analysis: Analyse needs
    - 1.1.2. Validate needs
    - 1.1.3. UI/UX Design: Mock-up design
- 2. Planning
  - 2.1. Project goals:
  - 2.2. Risk assessment:
  - 2.3. Plan: Make the plan. Include budget, timeframe and resource allocation.
- 3. Execution
  - 3.1. Making the website
    - 3.1.1.FrontEnd
    - 3.1.2.BackEnd
      - 3.1.2.1. Database Setup
      - 3.1.2.2. API Integration
  - 3.2. Social Media
    - 3.2.1. Establish users
    - 3.2.2.Produce ads
- 4. Testing
  - 4.1. Testing phase 1: Viability
    - 4.1.1. Functional testing
    - 4.1.2.Performance testing
    - 4.1.3. Security testing
    - 4.1.4.Compatibility testing
  - 4.2. Testing phase 2: User acceptance
  - 4.3. Final revision

### 5. Launch

- 5.1. Finalize website
  - 5.1.1. Host & domain setup



# Exercise 6: Scope validation

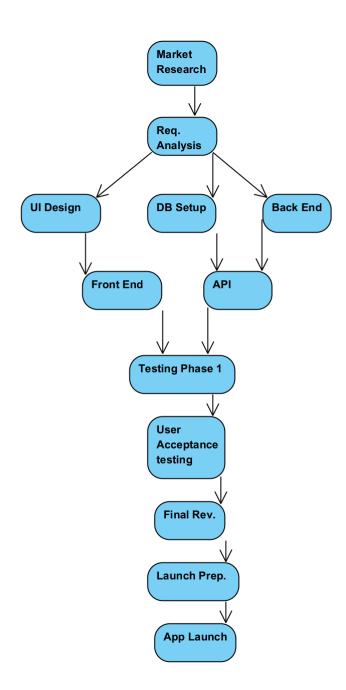
A potential scope creep would be changes in the facility. This would mean changing the number of rooms after making the facility after the demands. This would increase the cost of the project, how much it would cost depends on how far in the project you are.

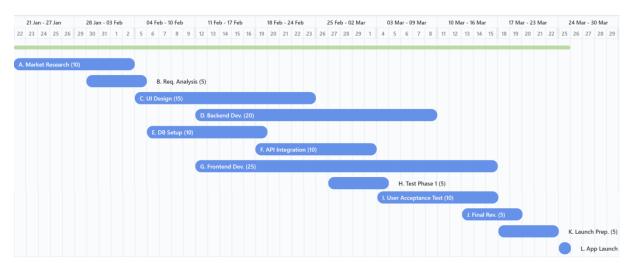
We could add a "pantemaskin" where you could scan your card or enter your customer number which would transfer the money to your balance on our website. This money could be used on the next membership payment. Problems with this could be maintenance, it could take a lot of space.

# Module 3

# Exercise 1

1



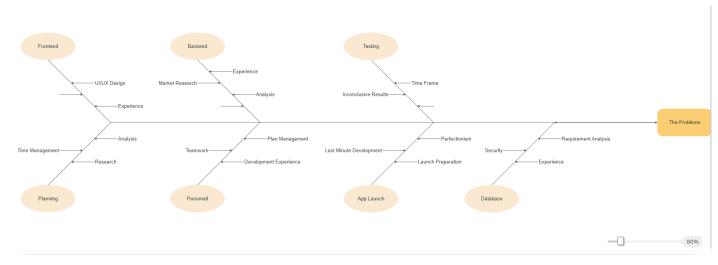


We have chosen to define the original project activity timeline as the latest start and finish of the project. The Gantt chart seen above is the timeline which the team feels most applicable. We therefore recommend 46 days for the project.

As for earliest start and finish, we feel the market research could be combined with the Requirement analysis and possibly be shortened to 8 days. UI/UX design could be combined with FrontEnd and together span 25 days in order to finish simultaneously with BackEnd. Database Setup and API Integration would follow the same path as the Gantt chart above. Rather than having an initial test phase, we would opt to have continuous testing throughout the development stage. User Acceptance Testing and the Final Revision stage would be combined and finish 2 days later than the development stage. We would shorten the Launch Preparation stage to 3 days and have the App Launch the following day. This shortens the overall timeline to 34 days.

### Exercise 2

# Exercise 3



# What are your measure against these risks?

Our measures would include gaining more experience and knowledge through working together and working on other projects to expand our competence.

We plan to have frequent meetings to discuss and prevent misunderstandings, this would also include going to through each other's code.

Using PRO1000GPT to help us understand and learn.

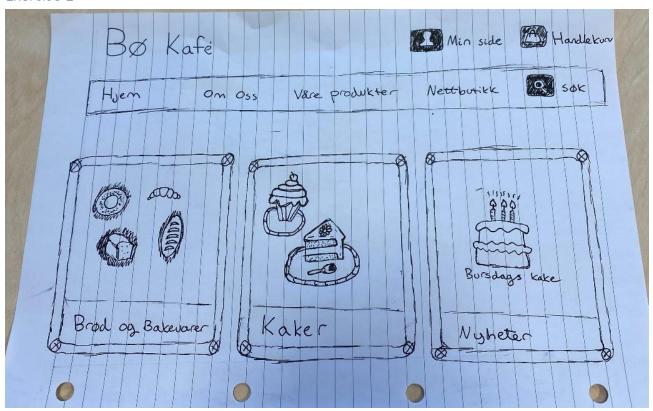
Learn from coding forums on services like discord and reddit.

Be open to make changes to the original plan.

Doing frequent testing and learning how to do proper testing.

### Module 4

#### Exercise 1



I prototypen for nettsiden til den lille kaffeen er det lagt til flere gestaltlover som er sett som spesielt nyttig når det gjelder design og analyse av et brukergrensesnitt. Gestaltlovene handler om hvordan mennesker organiserer og oppfatter visuelle elementer. I prototypen brukes det gestaltlover som nærhet, likhet, kontinuitet, forgrunn og bakgrunn.

Nærhetsloven handler om at vi har plassert elementer som like eller like betydningsfulle i nærheten av hverandre. Et eksempel på dette er nav-baren på toppen av siden. I nav-baren befinner det seg knapper om temaer som er viktig for kunden, og skal lett føre dem videre til det de leter etter. Lenger ned på siden ser man firkantbokser som er sortert etter produkttype eller nyheter. Dette er en annen måte der vi har brukt nærhetsloven.

Likhetsloven brukes i nettsiden for kunden skal lett kunne forstå hva som hører sammen. Vi har brukt firkantbokser til å gruppere informasjon som gir visuell struktur.

Videre har vi brukt kontinuitetsloven til å som gjør at nettsiden ser ryddigere og mer strukturert ut. De forskjellige knappene/elementene er organisert ved siden av hverandre på usynlige linjer.

Til slutt brukes gestaltloven om forgrunn og bakgrunn i nettsiden. Ved bruk av forgrunn og bakgrunn kan de som lager nettsiden bestemme kundenes fokus og oppmerksomhet på nettsiden. Ved å bruke forgrunn og bakgrunn på nettsiden, blir det lettere å lage et organisert nettsiden med hierarki.

Hovedfokuset blir rettet mot forgrunnen der den viktigste informasjonen skal stå, mens i bakgrunnen står det mer bakgrunnsinformasjon.

User experience også kalt brukeropplevelse, handler om hvordan brukeren opplever interaksjon sin med en applikasjon, nettside, system eller produkt. Prototypen vår inneholder noen viktige aspekter ved User experience som visuell design, informasjonsarkitektur og enkelhet.

Med visuell design menes det å skape en behagelig visuell opplevelse. Dette kan oppnås med riktig bruk av farger og fargekontraster, lesbarhet, hierarki osv. Enkelthet er også en viktig aspekt med user experience. Hvis nettsidens design er enkelt og lett forståelig, vil dette gjøre brukeropplevelsen til kunden bedre og forhindrer forvirring med en unødvendig kompleks nettside.

Med informasjonsarkitektur mener man hvordan informasjon og funksjonaliteten er organisert på en nettside, for å gjøre det enklest mulig å finne informasjonen man leter etter. Prototypen av nettsiden vi lagde har en enkel struktur med en navbar på toppen av siden og det første man ser på siden er de forskjellige produktene butikken selger gruppert etter type vare.

### Exercise 2

DONE!

### Exercise 3



### Module 5

### Exercise 1: Scrum Project Management

### (SCRUM SOM METODE)

Scrum-projects consists of various amounts of sprints. Teams works together in a dynamic fashion in order to achieve the goals. As we have improved as a scrum team, we learned that scrum forms the foundation of empiricism and has three pillars. Scrum's three pillars are adaptation, inspection, and transparency. Scrum implements a structured process where progress is based on observations of reality. This helps the team find the best strategies possible to get tasks done. Real experience and observation makes the project better each time.

- ADAPTATION.
- INSPECTION.
- TRANSPARENCY.

There is a notable passage in the book 'Scrum Insights for Practitioners: The Scrum Guide Companion' and it reads as follows:

"Scrum works not because it has three roles, five events, and three artifacts but because it adheres to the underlying Agile principles of iterative, value-based incremental delivery by frequently gathering customer feedback and embracing change. This results in faster time to market, better delivery predictability, increased customer responsiveness, ability to change direction by managing changing priorities, enhanced software quality, and improved risk management".

The scrum method has shown positive outcomes on our project. We know that scrum has given us a significantly enhanced quality and improved our project.

# **Sprint in Scrum**

A sprint in scrum usually last one to two weeks where you have a specific goal you're working on. The sprint is a focused, time-limited period where a team works on a task from the project/product their working on. It is about planning, collaborate daily with your team, and then reflect as a team how you can improve. .....(SKRIVE LITT TIL OM SPRINT)......

#### **Pre-Sprint:**

- Discuss and finalise functional and non-functional website requirements.
- Utilise UseCases to define user centric requirements.

• Agree upon a general UI/UX design (FIGMA)

# Sprint 1: Make a base prototype

In Sprint 1, we......

- X
- X
- X

Sprint 1 29.01.2024 - 09.02.2024 Goal:				
	Activity	Estimated time (days)	Actual time	
1	Planning	7	7	
2	Development	7	4	
3	Testing	3	2	
4	Review	4	7	

# Sprint 2: Second Prototype

In Sprint 2, we.....

- X
- X
- x

Sprint 2 12.02.2024 - 23.02.2024 Goal:					
	Activity	Estimated time (days)	Actual time		
1	Planning	7			
2	Development	7			
3	Testing	3			
4	Review	4			

# Sprint 3: Final Prototype

In Sprint 3 we .....

- x
- X
- x

Sprint 3 26.02.2024 – 08.03.2024 Goal :				
	Activity	Estimated Time (days)	Actual Time	
1		7		
2		7		
3		3		
4		4		

# Exercise 2 Sprint Reports

This document is a template for students at PRO1000 USN to report their activities and reflections when

conducting a Sprint, according to Agile software development approach. The document has four sections:

# Sprint 1

### 1. Meta Information

1.1. Team: Group 3

1.2. Sprint number: 1

1.3. Schedule: xx.xx.24 - xx.xx.24

# 2. Sprint Planning Notes

### 2.1. Sprint Goals

• In Sprint 1, we aim to lay the groundwork for the whole Scrum project in its entirety by producing the first draft of our product.

### 2.2. Definition of Done

• Sprint 1 is considered done when it has yielded a good enough first draft that can be upgraded further in future sprints.

# 2.3. Sprint Backlog

Item ID	Item Description Size Estimation		Customer Value
1	Planning		Mid
2	Development		High
3	Testing		Mid
4	Review		Low

# 2.4. Kanban Management Board

• VEDLEGG HEEEEELT NEDERST I OPPGAVEN

# 3. Sprint Review Note

3.1. Re	flective	Summary
---------	----------	---------

• Participants: x, x, x....

• Meeting location & duration: Campus Bo, 4hrs

• Discussion summary:

o X

o X

o X

### • Demo Results:

Item ID	Item Description	Size Estimation	Status	Demo
1	Planning			
2	Development			
3	Testing			
4	Review			

### 3.2. Customer Feedback

- Was the goal achieved?
  - Yes, the goal for Sprint 1 was achieved. All activities were completed.
- Was the customer pleased?
  - o Customer was not included in Sprint 1.
- Were there any misunderstandings?
  - Customer was not included in Sprint 1
- Was the Sprint scope or overall project scope changed?
  - o The scope was not changed.

### 4. Retrospective Meeting Note

- Participants: x, x, x, x
- Meeting location & duration: Campus Bo, 4hrs
- Summary:
  - 4.1. Start Doing:
    - o A
  - 4.2. Stop Doing:
    - o A
  - 4.3. Continue Doing:
    - A

# Sprint 2

### 1. Meta Information

- 1.1. Team: Group 3
- 1.2. Sprint number: 2
- 1.3. Schedule: xx.xx.24

# 2. Sprint Planning Notes

- 2.1. Sprint Goals
  - In Sprint 2, our goal is to make a static website for USNStart.
- 2.2. Definition of Done
  - Sprint 2 is considered done when, we achieve to make functional website.

# 2.3. Sprint Backlog

Item ID	Item Description	Size Estimation	Customer Value
1			
2			
3			
4			

# 2.4. Kanban Management Board

• Bilde av Kanban Management Board ligger som et vedlegg nederst på siden

# 3. Sprint Review Note

- 3.1. Reflective Summary
  - Participants:
  - Meeting location & duration: Campus Bo, 3hrs
  - Discussion summary:
  - Demo Results:

Item ID	Item	Size Estimation	Status	Demo
	Description			
1				
2				
3				
4				

### 3.2. Customer Feedback

- Was the goal achieved?
  - X
- Was the costumer pleased?
  - X
- Was there any misunderstandings?
  - X

# 4. Retrospective Meeting Note

- Participants: x, x, x, x
- Meeting location & duration: Campus Bo, 4hrs
- Summary:
  - 4.4. Start Doing:
    - o A
  - 4.5. Stop Doing:
    - o A
  - 4.6. Continue Doing:
    - A

# Sprint 3

### 1. Meta Information

- 1.1. Team: Group 3
- 1.2. Sprint number: 3
- 1.3. Schedule:

# 2. Sprint Planning Notes

<ul> <li>X</li> <li>2.2. Definition of Done</li> <li>x</li> <li>2.3. Sprint Backlog</li> <li>Item ID Item</li> <li>1</li> <li>2</li> <li>3</li> <li>4</li> </ul>	ı Description	Size Estima	tion Custo	omer Value
• x  2.3. Sprint Backlog  Item ID Item  1  2  3	Description	Size Estima	tion Custo	omer Value
• x  2.3. Sprint Backlog  Item ID Item  1  2  3	Description	Size Estima	tion Custo	omer Value
2.3. Sprint Backlog  Item ID Item  1  2  3	Description	Size Estima	tion Custo	omer Value
Item ID Item  1  2  3	Description	Size Estima	tion Custo	omer Value
1 2 3	Description	Size Estima	tion Custo	omer Value
3				
3				
4				
VEDLEGG HEEEEELT	NEDERST TOPPGA	AVEN		
3. Sprint Review Note				
3.1. Reflective Summary				
• Participants:				
Meeting location & c	duration: Campus	Bo, 4-5hrs		
<ul> <li>Discussion summary</li> </ul>	<b>:</b> :			
o <b>X</b>				
Demo Results:				
Item ID Item	Cizo	Estimation	Status	Demo

Item ID	Item	Size Estimation	Status	Demo
	Description			
1				
2				
3				
4				

### 3.2. Customer Feedback

- Was the goal achieved?
  - 0 X
- Was the customer pleased?
  - O X
- Was there any mistunderstandings?
  - O X

# 4. Retrospective Meeting Note

- Participants: x, x, x, x
- Meeting location & duration: Campus Bo, 4hrs
- Summary:
  - 4.7. Start Doing:
    - A
  - 4.8. Stop Doing:
    - A
  - 4.9. Continue Doing:
    - A

# SKAL SLETTES SENERE, MEN BARE LA STÅ INNTIL VIDERE:

https://reqtest.com/en/knowledgebase/agile-waterfall-hybrid-methodology-2/

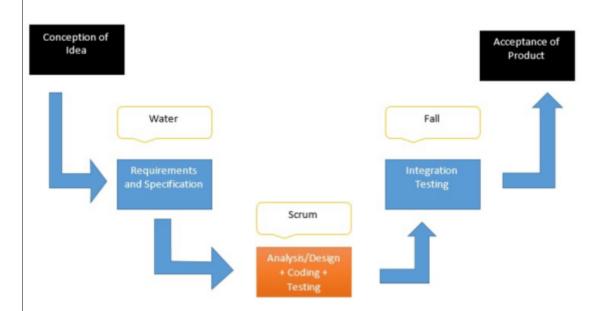
# Water-scrum-fall

One model that makes waterfall and agile get along is the Water-scrumfall model.

Business analysis and release management teams follow the traditional waterfall methods, while the development and testing team scrum methods in a limited way.

Water-scrum-fall method employs the traditional waterfall approach for planning, requirements gathering, budgeting and documenting the project's progress. When there are enough details to begin development, the team switches to a timeboxed, iterative version of Scrum for product development.

This method uses agile principles and scrum communication techniques in day-to-day activities related product development.



Organizations use water-scrum-fall model when they want details in the planning phase so they can make accurate estimations of the budget. If a project initial phase is carried out in a plan-driven way, it is more likely to convince management about the idea and they will feel secure when allocating funds.

Another reason for adopting water-scrum-fall model is the tendency of developers and testers to instinctively turn to agile practices during development. This happens because agile practices empower them and give them opportunities to collaborate as required by the limitations of the project.

# Module 6

# Exercise 1: Risk breakdown structure (RBS)

# Risks: (sort later)

- Jurisdictional risk over media and written -content.
- Missing technical expertise from the project team
- Scope creep: Å legge til nye funksjoner sent i systemutviklingsprosessen uten å dokumentere ordentlig
- Sikkerhet for nettsiden.

Risk	Probability	Severity	Risk Score	Action
Jurisdictional Risk	4	10	40	Continous communication with USN's
				jurisdictional department.
Missing Technical	7	8	56	Consistent learning and cross-training.
Expertise				Prioritize what is necessary.
Website Safety &	5	4	20	Choosing a stable framework and do
Security				regular backups.
Scope Creep	4	7	28	Continuous communication with
				stakeholders.
Communication	4	9	36	Schedule regular meetings with the
Issues				group as well as the supervisor. Clear
				communication with each other.
Underestimate	5	5	25	Analyze the WBS and split into smaller
work amount				tasks. Always be one step ahead.
Misunderstanding	3	10	30	Discuss the tasks together. Define the
the tasks.				project scope. Ask supervisor if
				needed.

# **Identify** risks

- Technical risks:
- External risks:
- Organisational risks:
- Project risks:

- Risk evaluation
- Risk analysis
- Implement risk strategy

### Exercise 2

Communication	Participant(s)	Required	Frequency	Approach
Туре		Instruments		
Internal team	Project Team	Discord, Physical	Weekly	Open
communication		meetings,		Communication
Stakeholder	Stakeholders,	Zoom	Weekly	Transparent
meetings	Project Team			communication &
				regular updates
Customer	Project team,	Google forms	Iterational	Controlled review
reviews	Potential			forms
	customers			

# Module 7

### Exercise 1

# Non-functional requirements

User Story 9: As a potential member, I want the landing page to be responsive and mobile-friendly, so that I can access and view the content correctly on any device or screen size. This user story focuses on the quality requirement of responsiveness and mobile-friendliness, ensuring that the website is accessible and usable across different devices.

User Story 10: As a potential member, I want to see a section about data privacy and security, so that I can trust that my personal information will be protected when using the coworking space's services.

This user story addresses the non-functional requirement of data privacy and security, emphasizing the importance of building trust with potential members by ensuring their information is protected.

### Exercise 2: Test Plan

# **Test Plan**

**Project Name:** [Capstone Project: USNStart]

Test Plan Title: [Project USN Test Plan]

Document Version: [Rev. 1.0]
Date Created: [1. April 2024]
Last Updated: [4. April 2024]

Document Owner: [Henrik, Safin, Elling, Filip]

**Contact Information:** [Emailene våre...]

Aspect	Description
Application Name	Coworking Space Management Website.
Testing Strategy	A combination of manual and automated testing will be conducted.
Testing Techniques	Primarily black-box testing will be conducted to assess the application's functionality from a user's perspective.  Some white-box testing may be performed for specific components.
Testing Levels	<ul> <li>Accessibility Test: Ensures that the website is usable by people with disabilities, ensuring equal access to the website.</li> <li>Functionality Test: Validates that all features and functionalities of the website work correctly as intended.</li> <li>Usability Test: Evaluates how easily and effectively users can interact with the website to achieve their goals.</li> <li>Compatibility Test: Ensures that the website performs consistently across different browsers, devices, and operating systems.</li> </ul>
Testing Approach for Non-functional Requirements	-Security Testing: This type of testing ensures that the website is secure from potential vulnerabilities and threatsCompatibility Testing: Ensure similar behavior of the website across various devicesCompliance Testing: Ensure the website meets the standards of the law related data protection and accessibility.
Test Success Criteria	-Completion of all test cases -Identification and resolution of critical and high-priority defects promptly to maintain the website's functionality and user experiencePositive user experience from usability testing with students to confirm that the website is intuitive, easy to navigate, and meets their needsConfirm functionality across various devices.
Test Environment	<ul><li>Devices: PC(W10, W11, MacOS) and Smartphone (iOS, Android)</li><li>Browsers: Latest versions of Chrome and Safari</li></ul>

- Test Automation Tools: Appium for mobile automation, Selenium for web compatibility testing - Performance Testing Tools: JMeter .

# Exercise 3 Usability Test

# **Usability Test Plan**

**Project Name:** [Capstone Project: USNStart]

Test Plan Title: [Project USN Test Plan]

Document Version: [Rev. 1.0]
Date Created: [1. April 2024]
Last Updated: [4. April 2024]

Document Owner: [Henrik, Safin, Elling, Filip]

**Contact Information: [Emailene våre...]** 

Aspect	Description	
Test objectives	Evaluate the overall usability of the coworking space management website.  To identify usability issues and gather user feedback for improvements.	
Scope	This usability test will concentrate on evaluating the user interface, navigation, and overall user experience of the USNStart Coworking Space website, specifically focusing on the landing page design and the desk booking functionality. The aim is to gather feedback from students at the Bø campus to ensure the website meets their needs and expectations effectively.	
Participants	We will recruit 8 participants who match the target user demographics for the website, including students, entrepreneurs, and professionals interested in coworking spaces.	
Test procedure	Each participant will be introduced to the website and its basic functionalities.  Participants will be asked to complete specific tasks using the website, such as:  Booking a coworking space for a specific date and time.  Viewing and editing their profile.  Pay for a membership.  Leaving a review on their experience visiting the facility.  Contact support for help.  Find information about the coworking space.  Test the responsiveness of the website.  Participants will use the "think-aloud" method, sharing their thoughts and impressions as they navigate the app.  Observers will take notes and record participant actions.	

Task 1: Log in to the app using your credentials and update your profile information.  Task 2: Find and book a coworking space for a reservation on a specific date and time.  Task 3: Locate information about available meeting room sizes and amenities.  Task 4: Provide feedback on your most recent coworking space visit.  Task 5: Contact customer support and inquire about membership options.
How would you rate your overall experience with the app on a scale of 1 to 5, with 5 being the best?  Were you able to complete the assigned tasks easily? If not, what challenges did you encounter?  What aspects of the app's user interface did you find most intuitive and user-friendly?  Were there any specific features or functionalities that you found confusing or difficult to use?  Do you have any suggestions for improving the app's usability or user experience?  Did you encounter any technical issues or bugs during your interaction with the app?.
Devices: PC(W10, W11, MacOS) and Smartphone (iOS, Android) Browsers: Latest versions of Chrome and Safari Test Location: Datalab at Campus Bø Moderator: [Safin Hassan] Observers: [Elling, Fillip] App Version: [NettsideForPro1000.1.3.1.1] Recording and Analysis Tools: Screen recording software, usability testing software, Hotjar to analyze how users interact with the website.

# **Usability Test Report**

Test objectives	Evaluate User Experience, Assess Navigation, Evaluate Responsiveness
Participants	User 1 – Amund
	User 2 – Joe
	User 3 – Marte
	User 4 – Roy

	User 5 – Nanna
	User 6 – Ingrid
	User 7 – Øystein
	User 8 – Hussein
Test result	Task 1: [Navigate to register account]
	Hard to find since you must press login first.
	Task 2: [Find the website reviews]
	Easy to navigate to.
	Task 3: [Navigate to booking room]
	Easy to navigate to and easy to book.
	Task 4: [Find contact information]
	Easy to find and easy to use.
	Task 5: [Find facility information]
	Easy to find with great information.
Key findings	Positive Observations:
	- Easy to find and use most parts of the website.
	- Nice that its reviews on the website.
	<ul><li>Membership looks good and understandable.</li><li>Getting contact information easily</li></ul>
	County contact information easily
	Areas for Improvement:
	- Make it easier for people to find register new account page.
	pager
Additional insight	Maybe a discount for the memberships
·	

# Module 8

Exercise 1

Exercise 2

Exercise 3

# Module 9

Exercise 1

Exercise 2

Exercise 3