Project Proposal and Supporting Documents

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1. Project Proposal

weSTEM is an NYUAD Student Interest Group supporting womxn in STEM at the university. It aims to create a supportive and inclusive environment while providing career development opportunities. Based on the model of weSTEM we aim to create STEM Inclusivity Lab to be able to share resources created by organizations such as weSTEM. STEM Inclusivity Lab aims to create greeted diversity, inclusion and promote equity in STEM field.

Business Need

- Open-source material for educational programs for girls in STEM and other minorities.
- Filling the gaps in education by providing multilingual resources for EMEA.
- Raising awareness on the position of female, non-binary, and other marginalized STEM individuals in the EMEA region.

Functionality (Business Requirements)

- Allow users to search through the documents on the website.
- Allow users to add, and update materials and projects to the site.
- Administrative approval is required for any addition or updates to materials on the website.
- The website interface will support two languages - English and Arabic, the documents will be in English.
- Create a forum to encourage user engagement.
- Supports admin privilege to take down the comments on the open forum in case of inappropriate content.
- Supporting feedback collection through access to messaging the administrators.

Expected Value (Business Value)

- Tangible:
    - Aim to reach 2000 individuals in the first 2 months of existence.

- Aim to support the development of 3 local weSTEM chapters based on the open-source data in the first 6 months.
- Develop a long-term sponsorship relationship with 2 business partners within the first year of existence.

- Intangible:
  - Contribute to weSTEM outreach efforts in the EMEA.
  - Raise awareness on the position of girls and womxn in STEM.
  - Create a community of like-minded individuals
  - Empower marginalized groups to pursue careers in STEM
  - Share the valuable resources to encourage youth and educational leadership in STEM

Special constraints

- Time constraints:
  - The system should be installed and running by the end of the course in December.

- Technical constraints:
  - The system should be available 24 hours, 7 days a week.
  - The necessity for the moderation of the participant engagement in the forums.
  - The necessity for the approval of documentation uploads.
  - Maintain the integrity of the uploaded projects during updates.

2. Feasibility Study

Technical Feasibility

- 1) Users' and analysts' familiarity with the business area:
  - The business area of the project is social innovation and impact, focusing on sponsorships and ad revenue as the main source of revenue.
  - None of the team members have any familiarity with the business area, so this project will present a steep learning curve and hence make this a high-risk project.

- 2) Familiarity with technology:
  - The technical tools we are going to use:
    - Database Management System: mySQL
    - Web languages: HTML, CSS
  - Team members have limited experience and familiarity with the technology needed for this project, which makes this a high-risk project.

- 3) Project Size:
  - It is for about 3 people for 3 months. The economic feasibility estimates it to 3 months and 19 days.

- 4) Conclusion:
  - The risk in this stage is high due to the modest team's familiarity with the technology, the short deadline, and the ambition of the project.

Economic Feasibility

- Cost-benefit Analysis

Costs	**Period 1**	**Period 2**	**Period 3**	**Period 4**	**Total**
Salaries	12,000	12,000	12,000	0	36,000
Hardware & Software	0	0	0	0	0
Training	1000 (course on web design)	0	0	0	1000
Support & Maintenance	0	0	0	0	0
Other	2000(graphic design)	1000 AED (promotional material)	0	0	3000
Total Costs	**15,000**	**13,000**	**12,000**	**0**	**40,000**
Benefits	**Period 1**	**Period 2**	**Period 3**	**Period 4**	**Total**
Add revenue	0	0	0	10,000	10,000
Sponsorships	0	10,000	20,000	20,000	50,000
Total Benefits	**0**	**10,000**	**20,000**	**30,000**	**60,000**
NCF	(15,000)	(3,000)	8,000	30,000	20,000
CNCF	(15,000)	(18,000)	(10,000)	20,000	40,000

The average monthly salary in UAE is 20,000 AED; each of us would spend 1 working day/week on the project, bringing our individual salary to 4,000, for the three of us, that would be 12,000 AED.

Graphic design will need to be outsourced as none of the team members are familiar with it and do not have the resources to do it themselves.
Promotional Material is needed to assure profitable sponsorships, which are in the first 4 periods the main source of revenue.
NCF: Net Cash Flow
CNCF: Cumulative Net Cash Flow
One period corresponds to one month.

- Total Return on Investment

(Total Benefits - Total Costs)/(Total Costs) = (60,000 - 40, 000)/(40,000)=20k/40k=0.5
ROI=50%

- The break-even point

(Predict NCF - CNCF)/(Period NCF) = (30,000-20,000) / (30,000) = 0.333
0.33 * 1* 30 = 10
It will take 3 months and 10 days to complete this project.

- Conclusion
  - ROI is good.
  - The length of the project is longer than expected but reasonable.
  - Benefits are conditional on the success in building partnerships.
  - Risk is moderate.

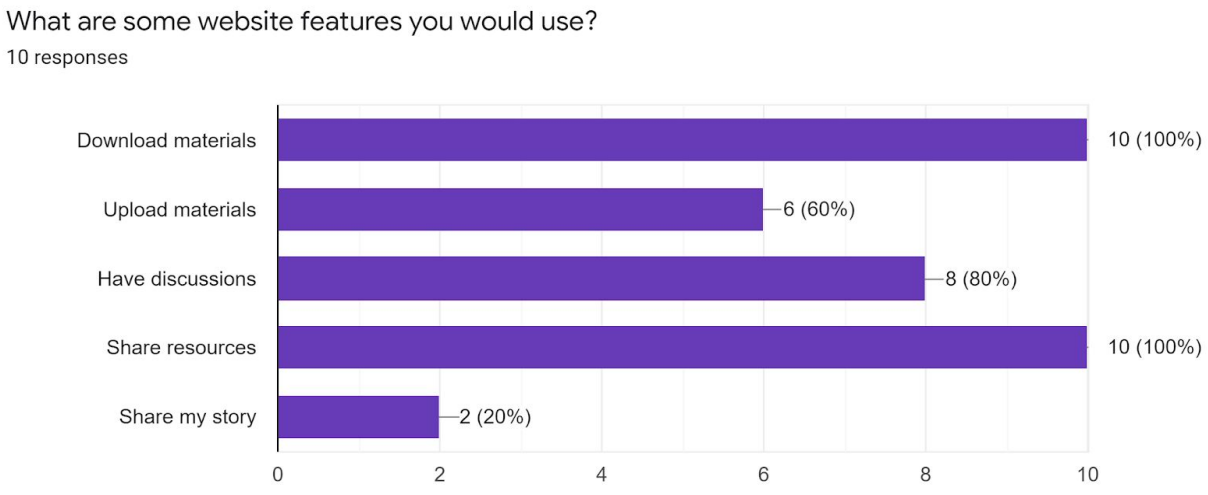
3. Project Survey

To determine what the needed and wanted features of our website would be we made a survey and shared it with the members of the weSTEM Community.

We targeted the weSTEM community specifically as that is our primary audience - students who care about the position of womxn in STEM and would want to change that through organizing their own events and initiatives.

The survey, which you can find here, had a very simple design. We only wanted to get a sense of what features users would be most interested in, to ensure that our business requirements were met.

We received 10 responses from individuals in 5 different countries. 8/10 identify as womxn in STEM. The most important features of the website according to your users are downloading materials and sharing resources. Both of these have been outlined in our SRS. Resources sharing would be implemented through the forum feature. Any document that is uploaded to the website, can be downloaded by any website user.



4. Proposed Process Models

For the STEM Inclusivity Lab, we propose to undertake the software process model that joins the spiral process model with the agile SCRUM model.

Due to the size of the project, the different features we are hoping to implement, and how they relate to each other, we believe that the process model will be best-suited to support that. We are hoping to take on one feature at a time (described in the SRS document: Log-In, Discussion, Accessing Materials & Feedback). Due to its iterative nature, the spiral model would allow us to reexamine the requirements, identify any potential problems for each feature separately, which we believe would be of the utmost importance for assuring the quality of the final product. Since our familiarity with the technological and business aspects of this project is fairly poor, the spiral model would allow us to approach both in a more gradual manner, allowing us to slowly build up our experience.

At the same time, we have limited time available and also multiple use cases for each of the features, which means that we will need to be very agile in our work within each iteration of the spiral model. The three team members have great team dynamics, equal high expectations, and work well together, which enables us to use the SCRUM model for the smaller sprints within each iteration. In that way, we'll be able to develop all the functionalities we set to develop in a quick manner. While we are sacrificing some of the record and documentation keeping by undertaking the SCRUM model, we believe that the re-evaluation phase within each of the spiral model iterations will allow us to take a step back and determine what needs to be done.