**Business case**

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| Name: | DHAVAL BHAILALBHAI PATEL |
| Community (UN SD goal): | Goal 6 - Clean Water and Sanitation  Goal 3 - Good Health and Well being  Goal 11 - Sustainable Cities and Communities  Goal 17 - Partnerships for the goals |
| Date: | 17th May 2021 |

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| **Proposed Project** | Water pump status prediction system and discussion forum |
| **Date Produced** | 17th May 2021 |
| **Background** | According to UN reports, 3 billion people does not have safe drinking water, some countries have funding gap of 61% to develop their infrastructure to provide safe drinking water.  According to UNESCO, ground water is the primary source of clean water for 50% of world population. Many 3rd world countries and remote location around the world does not have a clean supply of drinking water. Most of these locations rely on ground water for their daily needs. This has led to tremendous strain on the ground water levels. Communities highly rely on these water pumps to extract the ground water. If the water pump is not operational communities have to pay for alternative options like water tanker which cannot be available instantaneously and this will put additional strain on people with low income.    Additional personal research has shown that there were not substantial tools available for communities of Tanzania to interact on common space to solve their water crisis problem. |
| **Business Need/ Opportunity** | My main objective for this project is to predict if the water pump is operational or not. This can help agency to sent out a technician to repair it in advance. This will also show the status of the pumps for information of the communities of Tanzania. This will also introduce a platform where people can participate in discussion to sole water crisis problem in Tanzania. |
| **Options** | I will try to implement they key feature that will comprise majority of the software requirement for my MVP   * I will deploy predictive model using Django * I will deploy chat forum using WordPress. * I will try to improve the accuracy of model also add new features that will help my digital habitat to be more livable to the community |
| **Cost-Benefit Analysis** | |
| The time can be an important factor governing the development of functionality and tools for the digital habitat. I am going to use open-source software for my project. This can help me to speed up the development process with community collaboration and code reusability. But given the nature of the problem it may take time to customize the available resource for the proposed problem.  It will be my first-time using WordPress thus there might be additional cost of plugins for getting the desired functionality.Also future migration of transferring the forum from wordpress to Django to form a unified configuration might add overhead to the total cost of the project. | |
| **Recommendation** | |
| The recommendation for cost cutting would be to develop a platform on a single language but given the time constraints and my knowledge on the subject it would be a difficult task to achieve in give time. | |