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| **BSc (Hons) Computing Course 2020/21**  **Level 6 Production Project** | | |
| **Name:** Bikram Lamichhane | **Student I.D.:** 77202642 | |
| **Course:** BSc (Hons) Computing | **Supervisor’s Name:** Shiva Prasad Nepal | |
| **Final Project Individual Aim & Objectives** | | |
| **Title of my Project:** Smart Health diseases Prediction System using machine learning | | |
| **Aim of my Project:** To build website which helps patient to guess his/her diseases based on symptoms and suggest him/her the right doctor. | | |
| **Objectives of my Project:**   * To allow user to get instant guidance on their health problem through Website. * To allow user to search for doctor’s help. * To do research on existing Smart health diseases prediction system. | | |
| **Specification of my Product:**  **Functional Requirements:**   |  |  |  | | --- | --- | --- | | **S. N** | **Description** | **Moscow** | |  | Guess the Diseases based on patient symptoms. | M | |  | Display Doctors information on user interface. | M | |  | Suggest the doctor according to the patient’s diseases. | M | |  | Admin and user login system. | S | |  | User registration form that collects username, email, DOB and so on. | S | |  | Doctor login system. | W | |  | Only login user will have a facility to get instant guidance on their health problem. | C |   **Non-Functional Requirements:**   |  |  |  | | --- | --- | --- | | **S. N** | **Description** | **Moscow** | | 1. | Site built to be viewable in all devices and popular browsers. | M | | 3. | Template applied consistently throughout the website. | S | | 4. | HTML/CSS template suited to requirements. | C | | | |
| **Research:**  In present world health prediction using machine learning is useful for all the people. People are facing problem nowadays that they cannot decide where to go when they suffer from some diseases.so, I thought that if there is some website that can predict the diseases of the people and suggest them doctor according to their symptoms. It will help people for their further treatment and save the time of people to decide where to go for their treatment. Diseases are increasingly emerging because of our current lifestyle. Our way of living and eating habits influence our wellbeing, causing heart disease and other problems. Because of the value of useful data, datamining is one of the most difficult and important research fields of health sector (Springer, 2020). There are lots of health prediction system available but there is less system which suggest doctor for us so, this product will help people to find a doctor. Artificial intelligence makes patients', physicians', and hospital managers' lives easier by automating things that people can otherwise accomplish in a fraction of the time and at a fraction of the expense (Daley, 2020).  **Evaluation:**  As we mention project specification and objective of our project at last product evaluation would be based on those objectives and project specification. For evaluation system will be testing according to our objectives and project specification. The evaluation of product will be done by both quantitative and qualitative mechanism. Testing is implemented right into the development process of Agile to ensure that problems are found as early as possible. As a result, testers will spot issues early in the production phase, allowing the product to be released sooner. These types of things play important role to make a final product. | | |
| **Project Planning & Methodology** | | |
| **Project Planning:**  **Gantt chart:**  **Graphical user interface  Description automatically generated**    **TimeLine:**  **Graphical user interface, application  Description automatically generated**  **Methodology:**  In this project Agile methodology will be implement. This approach encourages continual improvement and testing during the software development lifecycle. Unlike Waterfall model, Parallel development and testing are possible in the Agile model. The Agile product development strategy is one of the simple and most effective approaches to transform a vision for a business demand into software system. Agile software development strategies are described continuous planning, research, progression, team collaboration, evolutionary formation, and early deployment. The four fundamental principles of agile software growth are highlighted below:   * Discussions about procedures and resources among individuals and groups. * Adapting to transition in a planned manner. * Partnership with customers rather than contract negotiations. | | |
| **Resources** | | |
| **The hardware and software I require to complete my Project successfully:**  **Hardware:** Dell Inspiron 14 5000 2-in-1  **Software:** PyCharm, Jupyter notebook, Bootstrap, Xampp, Visual code. | | |
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| **Human Resource** | | |
| **I am working on my Project with the following people** | | |
| **Name:** Bikram Lamichhane | **Role:**  Module Leader Nilmani Neupane  Supervisor: Shiva Prasad Nepal | |
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| **Initial Bibliography**  Disease Prediction using machine learning. (n.d.). *Disease Prediction using machine learning*. [online] Available at: https://amigoscreation.blogspot.com/2020/07/disease-prediction-using-machine.html.  ‌Nevon Projects. (2015). *Smart Health Prediction Using Data Mining Php*. [online] Available at: https://nevonprojects.com/smart-health-prediction-using-data-mining-php/ [Accessed 10 May 2021].  ‌www.linkedin.com. (n.d.). *SMART HEALTH PREDICTION USING DATA MINING-By.Dr.Mahboob Khan*. [online] Available at: https://www.linkedin.com/pulse/smart-health-prediction-using-data-mining-bydrmahboob-dr-mahboob [Accessed 10 May 2021].  Khan, A.K., Sami, Dr Tehseen Ahmed Jilani, Areeba Jabeen, Bushra Mansoor, Muhammad Faizan (n.d.). *Smart Health Prediction System - ppt download*. [online] slideplayer.com. Available at: https://slideplayer.com/slide/13462995/ [Accessed 10 May 2021].  Guru99 (2019). *Agile Model & Methodology: Guide for Developers and Testers*. [online] Guru99.com. Available at: https://www.guru99.com/agile-scrum-extreme-testing.html.  ‌Jackins, V., Vimal, S., Kaliappan, M. and Lee, M.Y. (2020). AI-based smart prediction of clinical disease using random forest classifier and Naive Bayes. *The Journal of Supercomputing*.  Daley, S. (2018). *Surgical robots, new medicines and better care: 32 examples of AI in healthcare*. [online] Built In. Available at: https://builtin.com/artificial-intelligence/artificial-intelligence-healthcare.  ‌  ‌  ‌  ‌ | | |