

# Empathy Map Canvas

( Early Detection of Chronic Kidney Disease using Machine Learning )

Gain insight and understanding on solving customer problems.

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Build empathy and keep your focus on the user by putting yourself in their shoes.



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# **EARLY DETECTION OF CHRONIC KIDNEY DISEASE**

## **Problem Statement:**

The user needs a way to detect chronic kidney disease at early stages so that the chances of curing the disease is high.

Early Detection of chronic kidney disease based on medical tests we take for different purposes can be of major help in curing this major disease.

1. Qin, J., Chen, L., Liu, Y., Liu, C., Feng, C., & Chen, B. (2019). A machine learning methodology for diagnosing chronic kidney disease. *IEEE Access*, 8, 20991–21002.
2. Alloghani, M., Al-Jumeily, D., Baker, T., Hussain, A., Mustafina, J., & Aljaaf, A. J. (2018, August). Applications of machine learning techniques for software engineering learning and early prediction of students' performance. In *International Conference on Soft Computing in Data Science* (pp. 246–258). Springer, Singapore.
3. Kate, R. J., Perez, R. M., Mazumdar, D., Pasupathy, K. S., & Nilakantan, V. (2016). Prediction and detection models for acute kidney injury in hospitalized older adults. *BMC Medical Informatics and Decision Making*, 16(1), 39.
4. Park, N., Kang, E., Park, M., Lee, H., Kang, H. G., Yoon, H. J., & Kang, U. (2018). Predicting acute kidney injury in cancer patients using heterogeneous and irregular data. *PLoS ONE*, 13(7), e0199839.
5. Alickovic, E., & Subasi, A. (2016). Medical decision support system for diagnosis of heart arrhythmia using DWT and random forests classifier. *Journal of Medical Systems*, 40(4), 108.
6. Masetic, Z., & Subasi, A. (2016). Congestive heart failure detection using random forest classifier. *Computer Methods and Programs in Biomedicine*, 130, 54–64.
7. Patrício, M., Pereira, J., Crisóstomo, J., Matafome, P., Gomes, M., Seica, R., & Caramelo, F. (2018). Using resistin, glucose, age and BMI to predict the presence of breast cancer. *BMC Cancer*, 18(1), 29.
8. Xiao, J., Ding, R., Xu, X., Guan, H., Feng, X., Sun, T., & Ye, Z. (2019). Comparison and development of machine learning tools in the prediction of chronic kidney disease progression. *Journal of Translational Medicine*, 17(1), 119.
9. Di Noia, T., Ostuni, V. C., Pesce, F., Binetti, G., Naso, D., Schena, F. P., & Di Sciascio, E. (2013). An end stage kidney disease predictor based on an artificial neural networks ensemble. *Expert Systems with Applications*, 40(11), 4438–4445.
10. Gunarathne, W. H. S. D., Perera, K. D. M., & Kahandawaarachchi, K. A. D. C. P. (2017, October). Performance evaluation on machine learning classification techniques for disease classification and forecasting through data analytics for chronic kidney disease (CKD). In *2017 IEEE 17th International Conference on Bioinformatics and Bioengineering (BIBE)* (pp. 291–296). IEEE.