

Seamless Data Capture: A QR Scanner with Google Sheets Integration

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Abstract: *This study presents the development and evaluation of a user-friendly QR Scanner mobile app with seamless Google Sheets integration. The motivation behind the research was to address the limitations of conventional QR scanner apps, which often lack direct integration with data management platforms like Google Sheets. The app development process employed a hybrid methodology, combining prototyping and agile approaches, resulting in an intuitive and well-designed solution. The app allows users to effortlessly scan QR codes and automatically sync the captured data to Google Sheets in real-time, providing immediate access and analysis. Evaluation using the System Usability Scale (SUS) yielded a satisfactory level of usability, with users finding the app easy to use*

Keywords: QR Scanner, Google Sheets

REFERENCES

- [1]. Google Sheets. (n.d.). Retrieved from <https://www.google.com/sheets/about/>
- [2]. Delaney, K., & Smith, J. (2020). QR Codes in Marketing: An Exploratory Study. *Journal of Marketing Trends*, 25(3), 150-165.
- [3]. Liu, H., & Chen, S. (2018). A Review of QR Code Technology and Its Applications. *International Journal of Information Management*, 42, 141-151.
- [4]. Patel, A., & Sharma, R. (2019). QR Code-Based Inventory Management System: A Case Study in Retail Industry. *International Journal of Logistics Systems and Management*, 34(1), 132-149.
- [5]. Chen, Q., Zhang, L., & Wang, X. (2020). A QR code-based metro ticketing system and its implementation. *Transportation Research Part C: Emerging Technologies*, 116, 102678.
- [6]. Johnson, L., Johnson, R., & Krueger, S. (2018). Enhancing Library Access with QR Codes. *Journal of Access Services*, 15(2), 90-98.
- [7]. Lee, J. H., & Kim, H. D. (2019). QR code-based pharmaceutical product anti-counterfeiting system. *Computers & Electrical Engineering*, 74, 309-319.
- [8]. Smith, M. A., Jones, R. B., & Johnson, K. A. (2019). Enhancing data capture in healthcare: An investigation of QR codes in patient identification. *International Journal of Medical Informatics*, 130, 103947.
- [9]. Wang, J., Wang, Z., & Zhang, Z. (2019). Application of QR code in manufacturing industry inventory management. *Modern Manufacturing Engineering*, 30(10), 117-121.
- [10]. Pressman, R. S. (2014). *Software Engineering: A Practitioner's Approach* (8th ed.). McGraw-Hill Education.
- [11]. Gallera, Jovie, & Salvador, Arvin. (2023). Assessment of Digital Information Systems for Local Barangays. *International Research Journal of Advanced Engineering and Science*, 8(2), 112-115.
- [12]. Sommerville, I. (2011). *Software Engineering* (9th ed.). Addison-Wesley.
- [13]. Beck, K., Beedle, M., van Bennekum, A., Cockburn, A., Cunningham, W., Fowler, M., ... & Thomas, D. (2001). Manifesto for Agile Software Development. Agile Alliance. Retrieved from <http://agilemanifesto.org/4>
- [14]. Android Studio. (n.d.). Retrieved from <https://developer.android.com/studio>
- [15]. Brooke, J. (1996). SUS-A quick and dirty usability scale. *Usability Evaluation in Industry*, 189(194), 4-7