CHAPTER 5. SUMMARY

Development of an Android weather forecast application using API is a useful and practical project that can give users access to accurate and current weather data. It is possible to include a variety of features in the application, including hourly forecasts and daily forecasts. To guarantee accurate data retrieval, choosing a trustworthy and up-to-date weather API is crucial. A user-friendly interface and straightforward navigation can also improve the user experience. In general, creating an API-based weather forecast application can be a worthwhile project for both developers and users.

This project develops a reliable and user-friendly weather forecast app by using weather data from dependable sources, like WeatherAPI. To assist users in planning their day or week, the application can provide real-time weather information, including current weather conditions, temperature, humidity, wind speed and direction, and more. Overall, a weather forecast application for Android that makes use of API can be a useful tool for people, organizations, and communities and has the potential to give users all over the world access to timely and relevant weather information.

REFERENCES

[1] G. Jain and B. Mallick, "A Review on Weather Forecasting Techniques," *International Journal of Advanced Research in Computer and Communication Engineering,* vol. 5, no. 12, 2016.

[2] V. K. Didal, B. A. Todawat and K. Choudhary, "Weather Forecasting in India: A Review," *International Journal of Current Microbiology and Applied Sci,* vol. 6, no. 11, 2017.

[3] A. Sarkar, A. Goyal, D. Hicks, D. Sarkar and S. Hazra, "Android Application Development: A Brief Overview of Android Platforms and Evolution of Security Systems," *Third International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC),* pp. 73-79, 2019.

[4] R. Singh, "An Overview of Android Operating System and Its Security Features," *Int. Journal of Engineering Research and Applications,* vol. 4, no. 2, pp. 519-521, 2014.

[5] P. Bourhis, L. J. Reutter and D. Vrgoč, "JSON: Data model and query languages," *Information Systems,* vol. 89, 2020.

[6] N. Nurseitov, M. Paulson, R. Reynolds and C. Izurieta, "Comparison of JSON and XML Data Interchange Formats: A Case Study," *Caine,* vol. 9, pp. 157-162, 2009.

[7] S. P. Kantamani, "Better Programming," 24 January 2020. [Online]. Available: https://betterprogramming.pub/a-detailed-story-about-handler-thread-looper-message-queue-ac2cd9be0d78. [Accessed 29 April 2023].

[8] A. Choudary, "Edureka!," Brain4ce Education Solutions Pvt. Ltd., 28 November 2018. [Online]. Available: https://www.edureka.co/blog/what-is-api-testing#API. [Accessed 15 May 2023].

[9] Amazon Web Services, "Amazon Web Services," Amazon Web Services, Inc., [Online]. Available: https://aws.amazon.com/what-is/api/?nc1=h_ls. [Accessed 16 May 2023].

[10] S. J. Bigelow, "TechTarget," TechTarget, 10 January 2023. [Online]. Available:

https://www.techtarget.com/searchapparchitecture/tip/What-are-the-types-of-APIs-and-their-differences. [Accessed 16 May 2023].

[11] J. Liu and J. Yu, "Research on Development of Android Applications," in *2011 4th International Conference on Intelligent Networks and Intelligent Systems*, 2011, pp. 69-72.

[12] E. Goshen, "Toptal," Toptal, LLC, 2017. [Online]. Available: https://www.toptal.com/android/android-threading-all-you-need-to-know. [Accessed 29 April 2023].

[13] R. . T. Fielding, *Architectural Styles and the Design of Network-based Software Architectures,* University of California, Irvine, 2000.

[14] L. Bassett, Introduction to JavaScript object notation: a to-the-point guide to JSON, Sebastopol: O'Reilly Media, Inc., 2015.

[15] D. Crockford, "The application/json media type for javascript object notation (json)," 2006.

[16] L. Ma, L. Gu and J. Wang, "Research and Development of Mobile Application for Android Platform," *International Journal of Multimedia and Ubiquitous Engineering,* vol. 9, no. 4, pp. 187-198, 2014.