

**CS102****Spring 2022/23**

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Criteria	TA/Grader	Instructor
Presentation		
Overall		

**Bahçeden****Bilkent Swifties****Mehmet Akif Şahin & Emir Ensar Sevil & Şükrü Eren Gökırmak****& Erfan Farhang Kia & Mehmet Anıl Yeşil****Project Requirements Report****( version 2.0 )****29 April 2023****1. Introduction**

The agriculture industry is one of the most vital sectors of Turkey due to the country's diverse climates and geographical location. However, small farmers often face significant problems and challenges in accessing markets and selling their products directly to consumers to make potential income from their sales. Intermediaries often dominate the market by buying products from farmers at cheap prices and eventually selling those products to consumers at higher prices, thus limiting the earning potential of small farmers. When looking into the economics literature, it can be seen that "... middlemen have been skimming off excessive profits and that should be eliminated, so that the growers get better return of their product"<sup>[1]</sup>. This is where Bahçeden comes in. This Android e-commerce app aims to build a bridge between small farmers and local consumers by maintaining a direct connection between producers and customers without needing mediators or intermediaries. It also aims to empower local farmers by providing a platform to showcase their products and reach a wider audience while enabling consumers to access fresh and locally sourced products at competitive prices.

**2. Details**

Bahçeden will be an Android app. Among the many features it will provide, the most important one which makes the app unique will be the price prediction system and price analysis for agricultural products. This feature will offer producers up-to-date information on the current market conditions,

including the supply and demand of certain products, the current price trends, and the availability of different products. This feature will let producers make informed decisions about when and what to sell, and how much they should charge. Consumers will also benefit from the price prediction system by keeping an estimate of future product prices. Additionally, the system will analyze the market data and recommend prices based on various factors, such as the cost of production, supply and demand, and seasonal trends to give recommendations on price setting. The app will provide many other useful features and utilities, such as:

## **2.1 Features for Consumers**

- Consumers will get the necessary features of an e-commerce app: adding/removing items to/from their cart, being able to save/favorite items that they may want to purchase later, and the ability to save their desired delivery location. As these are the basic functionality that makes an e-commerce site possible, they will be implemented.
- Consumers will also be able to leave reviews on the products they purchase. This review may be about the quality of the product, its packaging, or the service quality given by the producer. More categories may be added if necessary. By allowing the consumers to review the service they get, high-quality producers will naturally be recognized and selected more.
- Consumers will have the option to be notified of the recent trends of the market, e.g. the price changes in items they are interested in, current campaigns that may be happening, etc. This will help build a connection between the user and the app by forming a consistent stream of communication.

## **2.2 Features for Producers**

- Bahçeden will create a safe space for producers to sell their products and protect them from unfair intermediaries that profit from both sides of the transaction. The app will provide a secure and fair marketplace for producers to sell their products directly to consumers without the need for intermediaries. This can help to level the playing field for small and independent producers, enabling them to reach a wider audience and earn a fair price for their products. Additionally, the platform can provide consumers with greater transparency and trust in the pricing process, fostering a more ethical and sustainable marketplace for all.
- Bahçeden will give the producers access to real-time market data, giving an insight into the market for producers and helping them have a better understanding of the prices when it comes to tagging their products, as well as informing them about the current market fluctuations. Thus creating fair competition for the producers by making the market transparent and by giving everyone the same chance of analyzing the market.
- Bahçeden's pricing assistance feature will enable small farmers to stay competitive in the local market by keeping their prices in line with current market conditions. The app will monitor the market prices for various products and notify farmers when their prices are too high or too low. This will help farmers adjust their prices in real-time and make informed decisions to maximize their profits. By offering this pricing assistance, Bahçeden will support producers in maintaining a sustainable business.
- Bahçeden will provide feedback to producers, and show how their business can be improved. This will allow producers to receive constructive criticism and suggestions from their customers. By taking customer feedback into account, producers will be able to identify areas where they can improve their products or services, ultimately increasing customer satisfaction and loyalty. Bahçeden's feedback system will create a more

transparent and trustworthy relationship between producers and consumers, fostering a sense of community and mutual respect.

- Bahçeden will give information on what the current high-ordered products are. Every producer will have their own reports at the end of the month giving information about their analyses of their sales and ratings.

## 2.3 Features for Both

- A user-friendly and easy-to-use UI. By being easy to operate, Bahçeden will help producers and consumers focus on what's relevant, such as price changes, new orders, or analytics.
- The ability to securely create, log into, and delete accounts. Users will also be able to create and change preferences in the app, such as theme, notification settings, etc.

## 2.4 Comparison With Current Applications

Numerous dominating online grocery shopping apps are available in the market, notably Getir and Migros Sanal Market. These apps focus mainly on selling products without regard for their origin of supply chain. Most products sold on these apps come from external suppliers, which may lead to unfair prices for producers and consumers. However, our app, Bahçeden, sets itself apart by promoting fair trade methods and giving small-scale producers a chance to increase their revenue. By eliminating intermediaries, we offer our customers affordable prices and ensure that producers receive fair compensation for their products. Moreover, Bahçeden offers a host of features and tools that are unmatched by other grocery shopping apps. Our app provides real-time market data and price predictions, allowing consumers to make informed purchasing decisions. Our comprehensive feedback and rating system helps improve the quality of services and products, providing a better experience for producers and consumers. Additionally, our analytics and reporting tools allow producers to track their performance over time, making it easier to make data-driven decisions and optimize their business. With Bahçeden, you can expect a seamless grocery shopping experience prioritizing fair trade, quality, and affordability.

## 3. Summary & Conclusion

In conclusion, Bahçeden is a unique e-commerce app that aims to solve the problems small farmers face in accessing markets and selling their products directly to consumers, create a transparent and trustworthy relationship between producers and consumers, and level the playing field for farmers. The most important feature of Bahçeden is the price prediction system and price analysis for agricultural products, which offers producers up-to-date information on the current market conditions and helps them make informed decisions about what and when to sell. Consumers also benefit from this feature by being offered optimal prices for products. Other features of the app include the ability to leave reviews, notifications about market trends, access to real-time market data, pricing assistance, and feedback from users. In summary, Bahçeden can play an important role in the agriculture industry by empowering local farmers and providing consumers with fresh, locally sourced products at competitive prices.

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<sup>1</sup> Nizamani, Rauf. "Middleman's Monopoly on Multiple Farm Services." *Economic Review* (05318955), vol. 41, no. 2, Feb. 2010, pp. 33–38. EBSCOhost, search.ebscohost.com/login.aspx?direct=true&db=bsu&AN=48633991&site=eds-live.