

PrimeApps Whitepaper - 2

Deep Dive into Technology

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1. What is PrimeApps?

PrimeApps is a low-code platform designed to let corporations develop applications they need rapidly and conveniently, almost without writing any code at all.

The advantages of these platforms, which are gaining popularity day by day, have become even more visible today. All advantages and features offered by PrimeApps will be addressed in this document.

2. Why Would Your Institution Need PrimeApps?

Information systems play a crucial role for corporations in attaining their business objectives. However, creating a good information system includes various cost items. Before building their information systems, corporations should evaluate different factors including the costs they would bring. The most important factors in this respect are identified below:

Speed – Application development processes can usually be completed between 3-to-12 months, depending on the properties of the application. This period may even be longer as application details increase. However, along with technological developments, needs and wants change and develop continuously. The long period required for application development poses problems in relation to complying with changing needs. The application development infrastructure of PrimeApps, which is based on drag-and-drop model, as well as various other built-in components and features that accompany this infrastructure, allow us to develop applications 10 times faster than usual.

Time and Personnel Costs – In addition to what is said about speed above, time is another key concept in application development. The time required in the process of version upgrades of a current application and the number of employees who take part in application development incur additional costs on corporations. Hence, the already long process of application development due to issues such as changes in technology, new requirements and handling of errors in present codes becomes very costly. In contrast, owing to its intuitive interface and less reliance on codes up to 98%, PrimeApps can take part in the application development process without requiring the user to

have much technical information. Moreover, modifications and upgrades can be made quite rapidly and with less personnel cost in our application due to its elaborate structure.

Infrastructure Cost – In conventional application development processes, corporations are required to cover expenses such as hardware, storage (server etc.), network infrastructure, security, energy consumption and maintenance costs. Yet, the cloud-based system of PrimeApps provides all infrastructure components you need along with the platform. In other words, you do not have to pay any additional fee for PrimeApps' infrastructure components.

Operating Costs – Besides the costs of application development process, corporations have to cover maintenance and upgrade costs as well after the application is made available for use. Statistics indicate that these exceed initial development costs in time. In addition to this cost aspect, changes made in applications which have not been developed on a good and extensible software infrastructure may eventually disrupt application architecture, which may cause too many errors or considerable declines in application performance in time. In some cases, applications may even become dysfunctional due to the changes made. Since PrimeApps infrastructure is designed entirely on the basis of a flexible and extensible software architecture, updates can be added without any effect on the software architecture or performance, and modifications can be introduced very rapidly. Corporations can develop the applications they need easily and flexibly by PrimeApps with a 75% decline in application development and upgrade costs

3. Which Solutions Does PrimeApps Provide for Your Needs?

Using various features offered by PrimeApps platform, you may develop utterly flexible and productive applications in the application development process, and meet your requirements at the maximum.

Making use of the rapid modelling feature of PrimeApps, you may divide your application into modules, each of which can be prepared quickly owing to the lucid, drag-and-drop interface design, and establish relations between your modules.

PrimeApps My-Apps Preview Publish

Lead Information

* Owner: Phone:

* First Name: Mobile:

* Last Name: Fax:

Name: Email:

Salutation: Website:

* Company: Skype:

Job Title: Twitter:

Lead Source: Facebook:

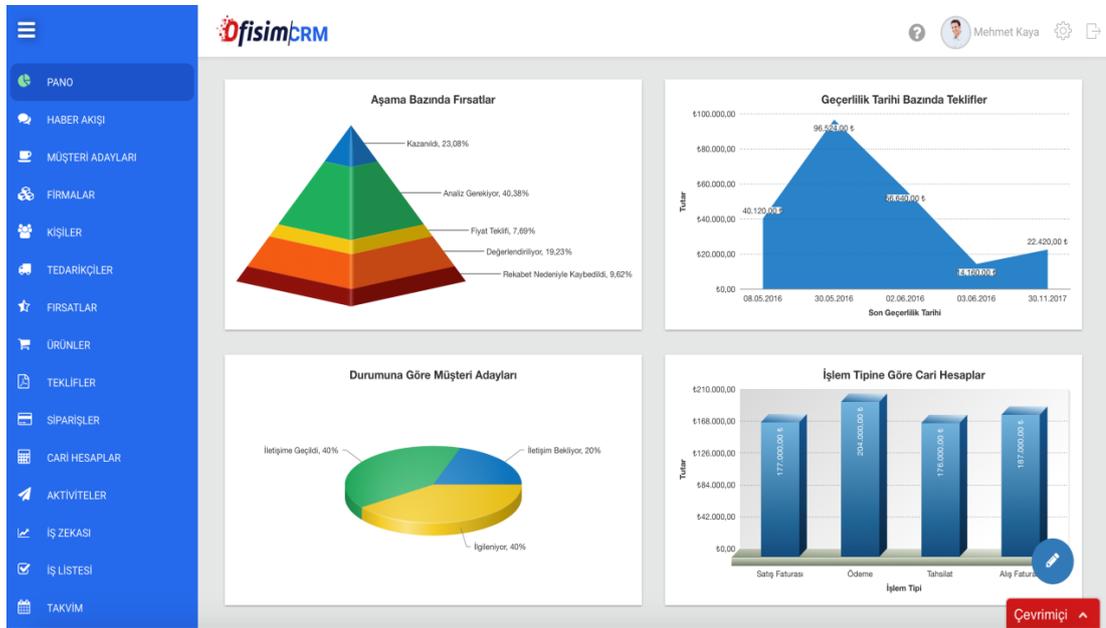
Lead Status: E-mail Opt Out:

Industry: SMS Opt Out:

Annual Revenue: New Field

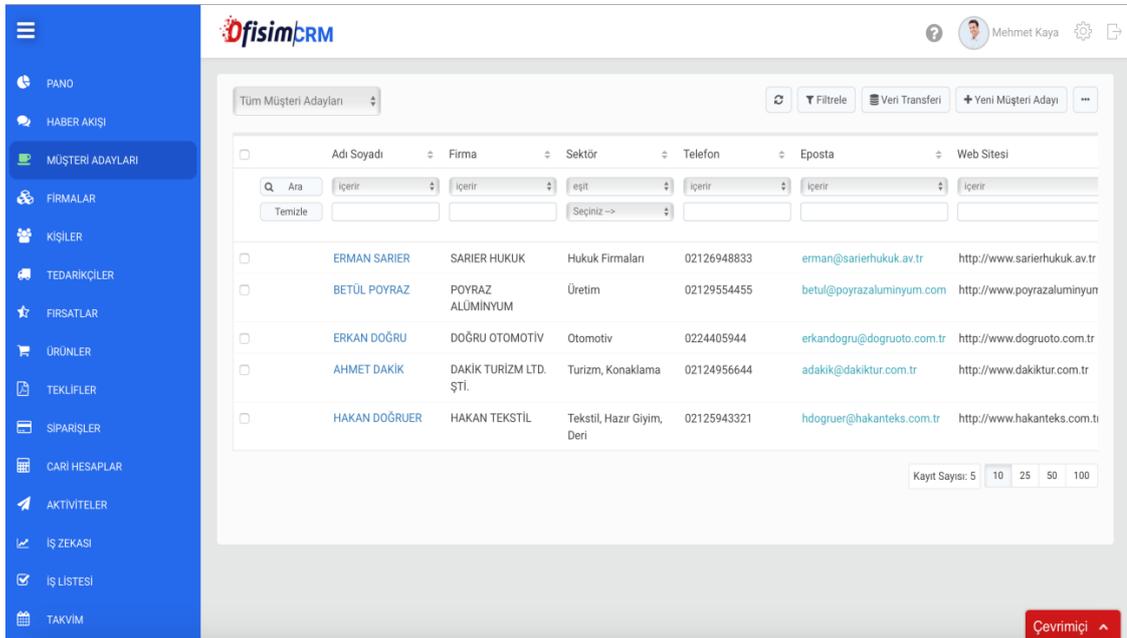
No. of Employees:

Utilizing the advanced reporting features based on your application data, you may generate various reports and graphs, both numerical and statistical, and prepare dynamic dashboards with these graphs.



In addition to these, you may export all data in the list screen of the application, or import the data you compiled in another environment to the application.

Moreover, owing to the advanced filtering and search properties, you may retrieve the data you need within the registries using different filtering criteria or create custom views with your frequently used filters, and adjust the fields that you wish to be displayed in this view as well as their ordering.

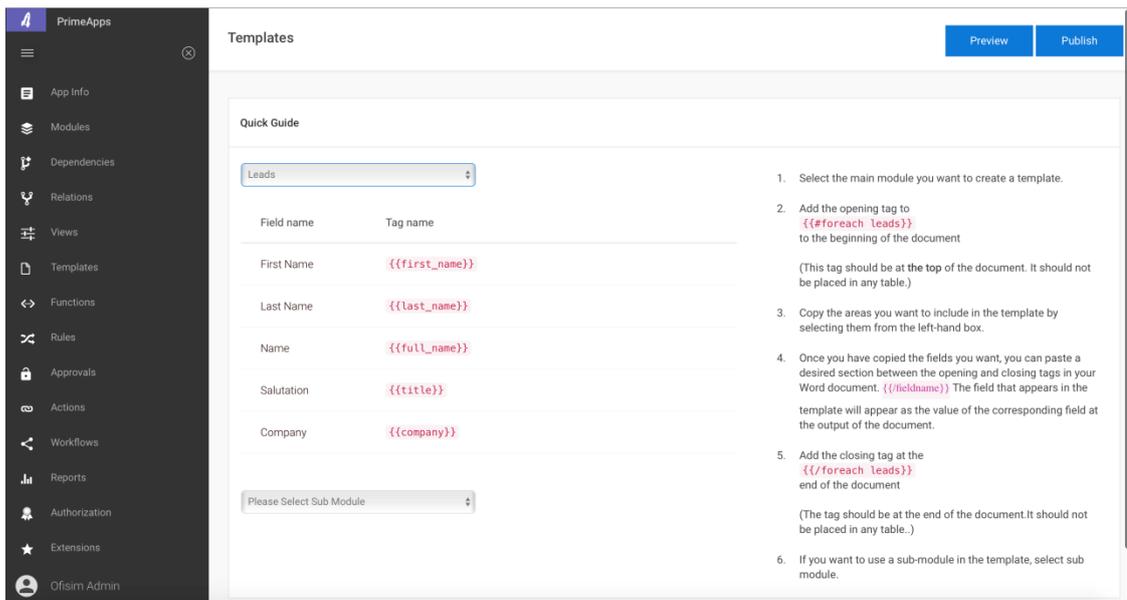


The screenshot displays the Ofisim CRM interface. On the left is a blue sidebar menu with options: PANO, HABER AKIŞI, MÜŞTERİ ADAYLARI (highlighted), FIRMALAR, KİŞİLER, TEDARİKÇİLER, FIRSATLAR, ÜRÜNLER, TEKLİFLER, SİPARİŞLER, CARI HESAPLAR, AKTİVİTELER, İŞ ZEKASI, İŞ LİSTESİ, and TAKVİM. The main area shows a table titled 'Tüm Müşteri Adayları' with columns: Adı Soyadı, Firma, Sektör, Telefon, Eposta, and Web Sitesi. The table contains five entries:

Adı Soyadı	Firma	Sektör	Telefon	Eposta	Web Sitesi
ERMAN SARIER	SARIER HUKUK	Hukuk Firmaları	02126948833	erman@sarierhukuk.av.tr	http://www.sarierhukuk.av.tr
BETÜL POYRAZ	POYRAZ ALÜMİNYUM	Üretim	02129554455	betul@poyrazaluminum.com	http://www.poyrazaluminum.com
ERKAN DOĞRU	DOĞRU OTOMOTİV	Otomotiv	0224405944	erkandogru@dogruoto.com.tr	http://www.dogruoto.com.tr
AHMET DAKIK	DAKIK TURİZM LTD. ŞTİ.	Turizm, Konaklama	02124956644	adakik@dakitur.com.tr	http://www.dakitur.com.tr
HAKAN DOĞRUER	HAKAN TEKSTİL	Tekstil, Hazır Giyim, Deri	02125943321	hdogruer@hakanteks.com.tr	http://www.hakanteks.com.tr

At the bottom right of the table area, there is a 'Kayıt Sayısı:' section with buttons for 5, 10, 25, 50, and 100. A red 'Çevrimiçi' button is located at the bottom right of the interface.

With the automatic document generation feature, you may automatically create documents such as price quotations, order reports, etc. using your company's logo, design templates and canned texts, and send these documents to your customers via e-mail templates you created in advance.



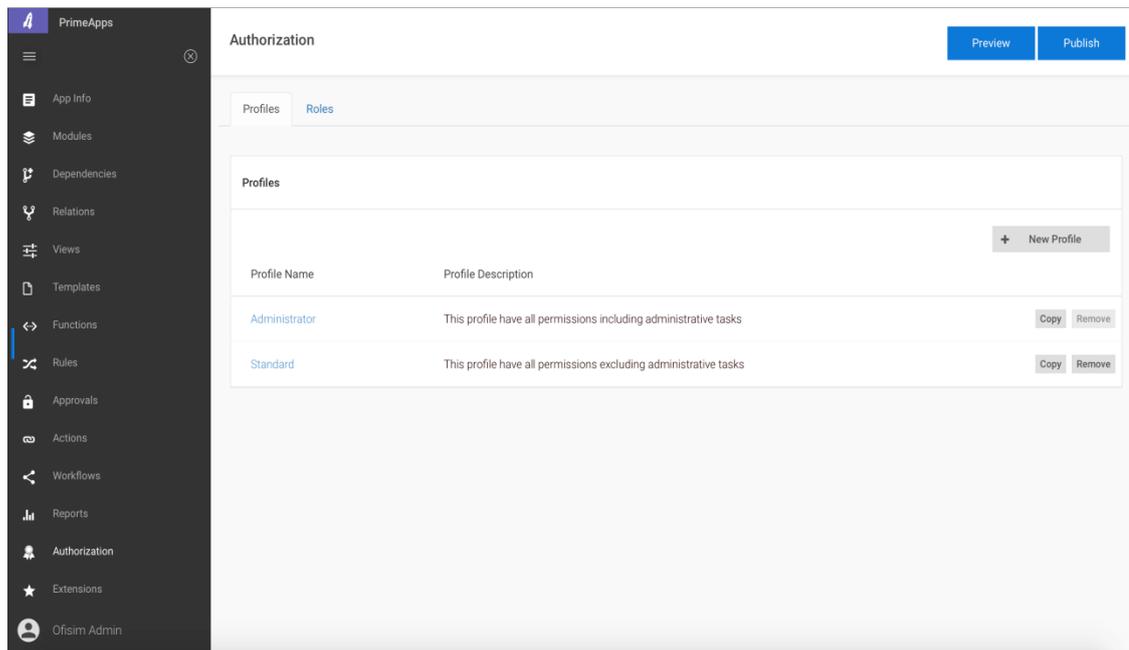
The screenshot shows the PrimeApps Templates interface. The left sidebar contains: PrimeApps, App Info, Modules, Dependencies, Relations, Views, Templates (highlighted), Functions, Rules, Approvals, Actions, Workflows, Reports, Authorization, Extensions, and Ofisim Admin. The main area is titled 'Templates' and has 'Preview' and 'Publish' buttons. A 'Quick Guide' section is visible, with a dropdown menu set to 'Leads'. Below this is a table mapping field names to tag names:

Field name	Tag name
First Name	{{first_name}}
Last Name	{{last_name}}
Name	{{full_name}}
Salutation	{{title}}
Company	{{company}}

Below the table is a dropdown menu labeled 'Please Select Sub Module'. To the right of the table is a numbered list of instructions for creating a template:

1. Select the main module you want to create a template.
2. Add the opening tag to `{{#foreach Leads}}` to the beginning of the document
(This tag should be at the top of the document. It should not be placed in any table.)
3. Copy the areas you want to include in the template by selecting them from the left-hand box.
4. Once you have copied the fields you want, you can paste a desired section between the opening and closing tags in your Word document. `{{fieldname}}` The field that appears in the template will appear as the value of the corresponding field at the output of the document.
5. Add the closing tag at the `{{/foreach Leads}}` end of the document
(The tag should be at the end of the document. It should not be placed in any table.)
6. If you want to use a sub-module in the template, select sub module.

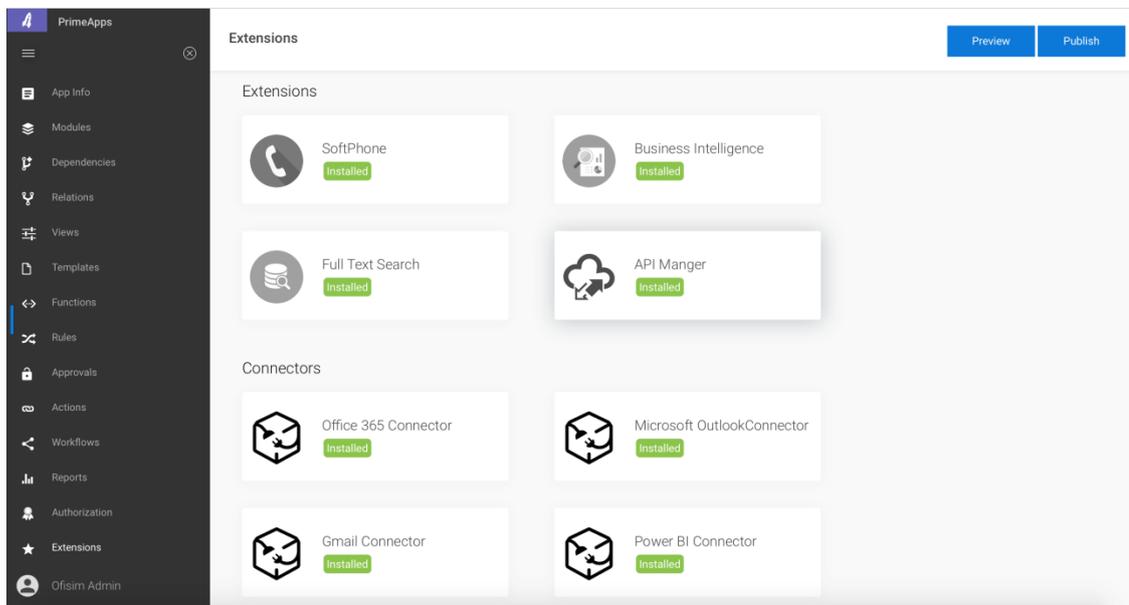
Assigning roles and profiles to the users of your application, you may specify how each user will have access to modules, module parts or fields (e.g. viewing, editing, deleting or creating, etc.).



You may run workflows when certain cases are defined on your modules, and perform various actions such as sending automated notifications, triggering a third party service or entering values to a specific field of a module using these workflows. You may model processes which do not require confirmation quickly, and designate dynamic or static approvers.

Using the service-oriented architecture of the system, you may get integrated with third party systems, and provide customized solutions for applications which require complex operating logic by injecting your own codes on the faceplate or the back side of the system.

Moreover, you may download the extensions you need for your applications under the Extensions tab and integrate them into your application.



4. Properties of PrimeApps Architecture

PrimeApps is a Low-Code Rapid Application Development Platform operating on cloud. These platforms are called hpaPaas (High Productivity Application Platform as a Service) by Gartner. PrimeApps operates on a multi-tenant architecture. The multi-tenant architecture is an infrastructure which allows simultaneous but isolated service provision to many clients (tenants) using the same cloud service. Thus, all clients within the system have their own secure domains.

Owing to the high scalability and accessibility properties of the cloud system, applications developed on PrimeApps can be used by many users simultaneously, and users may remain active continuously. Besides supporting different cloud architectures such as Public, Private, Hosted, etc., the architecture of PrimeApps also allows operating on-premise at the client's location. Due to this flexible architecture support, users may run their applications in different deployment models.

In addition, users can access to and store the data on the applications developed securely owing to the built-in advanced security features of PrimeApps. PrimeApps provides a strong authentication mechanism with its multi-pronged password protection options such as Password Strength Checker, Honey Words, Password Blacklist, etc. Encryption keys are saved securely by methods such as distributed encryption and Twincloud. All connections to PrimeApps applications are executed over SSL protocol. In sum, PrimeApps provides a very strong and ready security infrastructure to the users.

Data of applications developed by PrimeApps are backed up instantaneously at application level and daily at database level, and data can be recovered automatically in case of loss. This ensures your data to be accessible at all times.

Finally, owing to its infrastructure supported by microservices and special components architecture, PrimeApps can be integrated into third party systems.

5. The Target Audience of PrimeApps

Since PrimeApps provide services in a wide-range of fields, it is appealing to a rather large area in terms of its target audience.

Stakeholder companies which wish to develop their applications rapidly and conveniently via PrimeApps and release them with their own brand in the form of SaaS (Software as a Service), and the Data Processing Departments of large companies which wish to develop their own software applications swiftly constitute a large part of PrimeApps' target audience.

PrimeApps provides features customized for the needs of its customers in its target audience. Thereby, while developing their own applications or marketing the applications they have developed, each client can design the most suitable and scalable application easily by taking advantage of PrimeApps' advanced features.

6. The Position of PrimeApps in the Industry

The market segment in which PrimeApps is located includes 46 hpaPaaS products. According to the results given in Gartner's April 2017 report on this segment, platforms which have a large share in the market are AppCloud, Mendix, OutSystems, Appian, Betty Blocks and QuickBase. Since PrimeApps is the only local hpaPaaS platform in Turkey, it is the leading application in this market.

PrimeApps also aims to gain a place in the world market with the strong features and advantages it offers. Therefore, we specify the following points in order to evaluate the differences of PrimeApps from the applications mentioned above, and to discuss the pros and cons of rival applications:

- With its microservice based structure, PrimeApps allows you to utilize any programming language you wish during application development. Other applications, in turn, either allow the use of only their own programming languages or impose restrictions on programming languages

during application development. Application development by microservices is not available in any of the applications addressed in this comparison.

- A PrimeApps virtual store has been set up in order to let Independent Software Vendors (ISVs) to sell the applications they have developed to their customers easily. Other applications do not provide such a store.
- Owing to PrimeApps' multi-tenant structure, clients may sell the applications they develop within the platform to their customers (sub-tenant enabler). This is also a property which is offered only by PrimeApps.

Comparing PrimeApps with its competitors, one may note the following points:

Mendix and PrimeApps – The Mendix platform requires to create detailed workflows concerning each and every application. Furthermore, you have to create different interface designs for web and mobile devices. This is a significant drawback for the level of availability. On the contrary, PrimeApps supports the use of workflows only for necessary conditions. Moreover, it is possible to use simultaneous interfaces both for the web and mobile devices in PrimeApps.

OutSystems and PrimeApps – Since OutSystem's technology has drawbacks in relation to the maintenance and extensibility of software, it brings disadvantages to the clients in the long-run, for after each change end-users make in the platform, the system requires to execute redeployment processes. Hence, since redeployment processes will be required when codes are developed for new requirements, keeping the system under control becomes an issue. On the contrary, PrimeApps eliminates the need to deal with source codes or databases completely, because all of these processes are managed by the platform itself.

Appian and PrimeApps – Appian is described as a BPM tool rather than an end-to-end application development platform. Therefore, compared to PrimeApps, it has considerable disadvantages in terms of availability.

Betty Blocks and PrimeApps – Betty Blocks has certain drawbacks particularly in terms of services and extensions that ensure connectivity with other systems while modeling sophisticated business processes. On the contrary, PrimeApps has a strong service and extension architecture. Owing to this architecture, it is capable of providing various advanced features to its clients such as data exchange with third party systems, text search and business intelligence.

QuickBase and PrimeApps – The most important disadvantage of QuickBase is that it lacks mobile device support. Even though it is similar to PrimeApps in general in terms of basic properties, PrimeApps' workflow designer differentiates from QuickBase as it has mobile device support.

In conclusion, as a Low-Code Development Platform, PrimeApps have different features compared to its competitors throughout the world. Moreover, it will become one of the leading platforms both in Turkey and the world due to its strong architecture.