

Hard to say goodbye to Oracle Forms?

20.10.2023



HRC is a reliable partner in the development of the banking system

- o Located in Žalec, Slovenia
- o Near the Beer Fountain



Leading provider for banks and savings banks in Slovenia and Croatia

- o 100% presence in Slovenian savings banks
- o 46% presence in the Slovenian banking sector
- o 11% presence in the Croatian banking sector



Own core banking system called Hibis

For years, Hibis has been developed in Oracle Forms technology

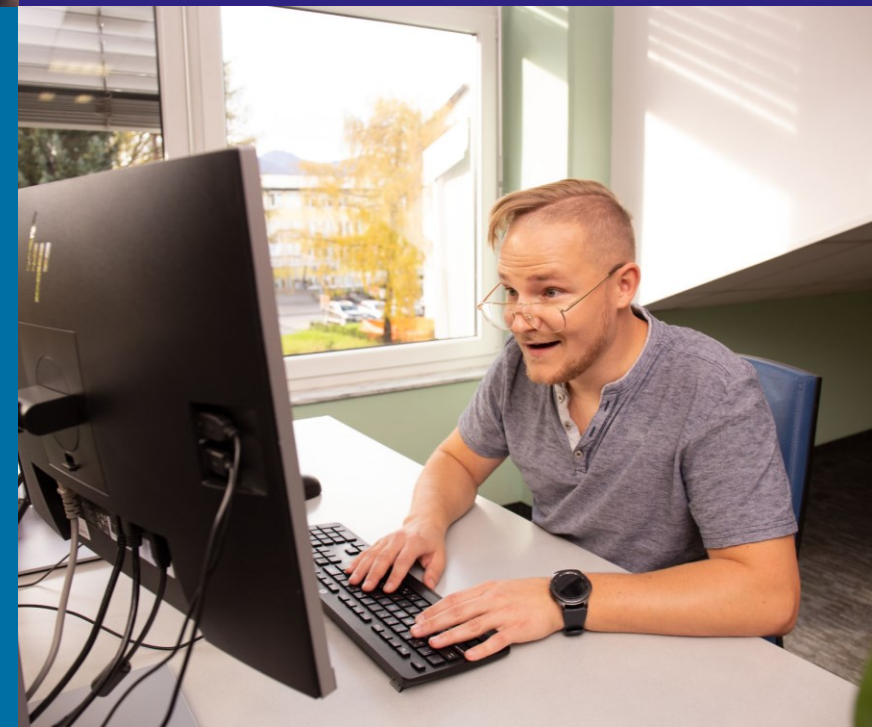
01



03



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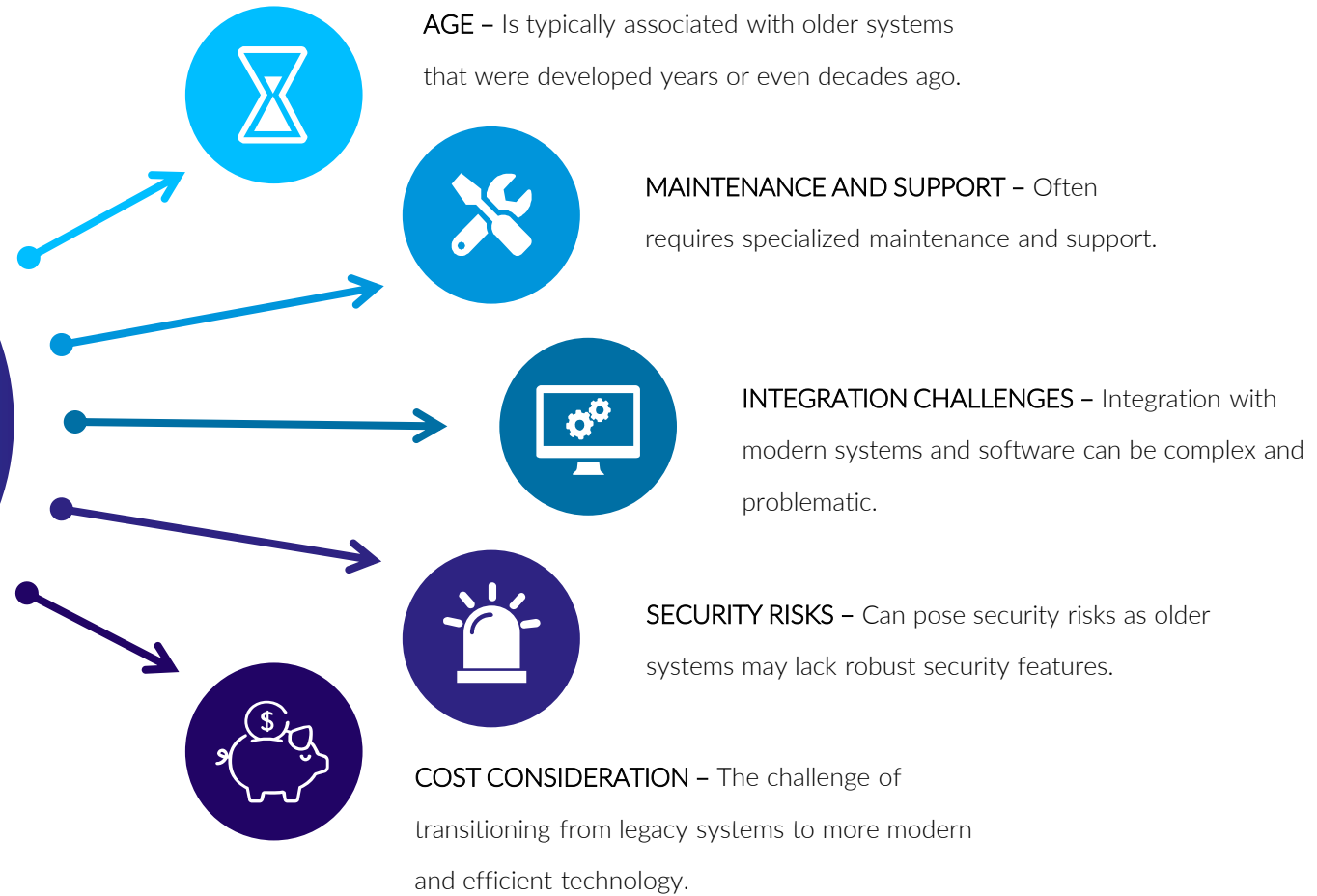




Is Oracle Forms legacy technology?

Legacy technology

Outdated or obsolete technology that is no longer widely used or supported



Late 1980s



Oracle forms 3.0

Mid 1990s



Oracle forms 4.5

2000

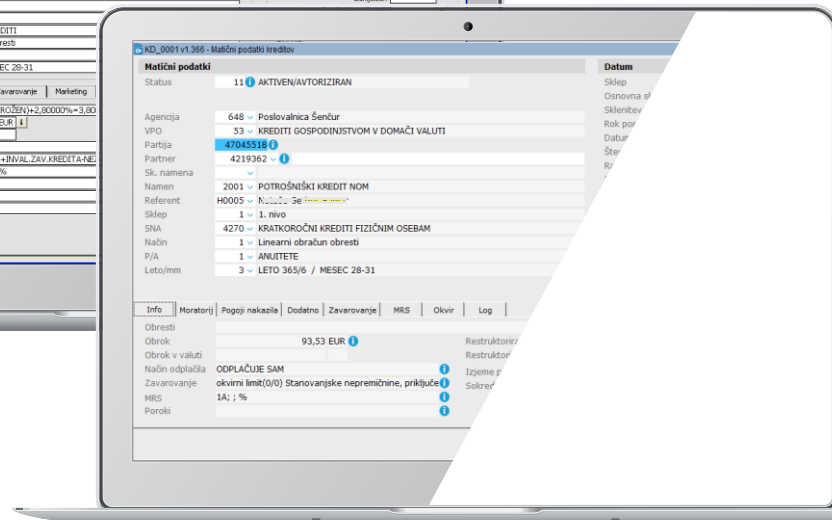
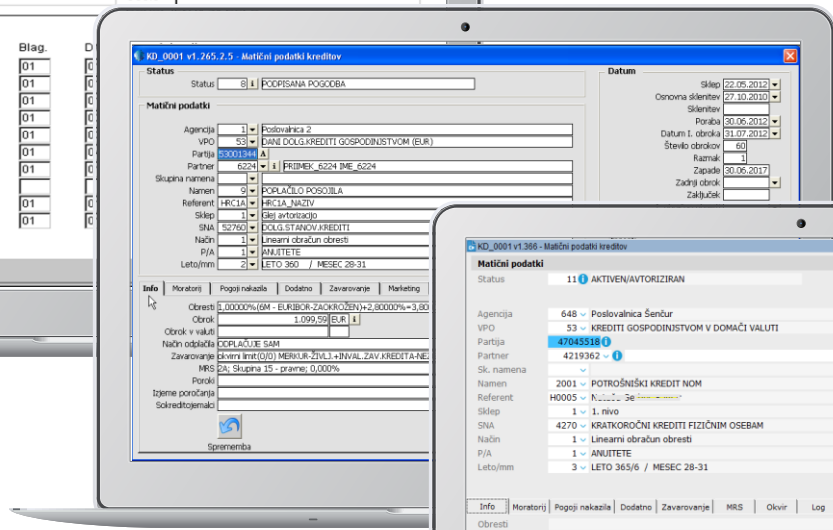
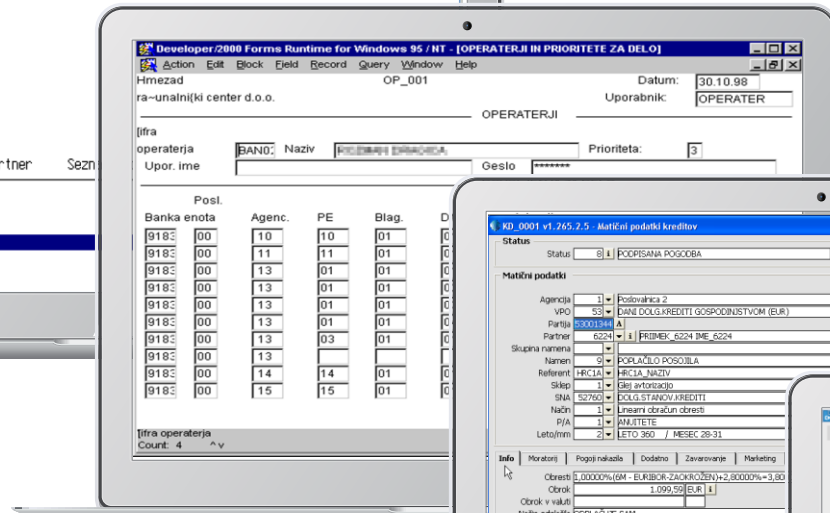
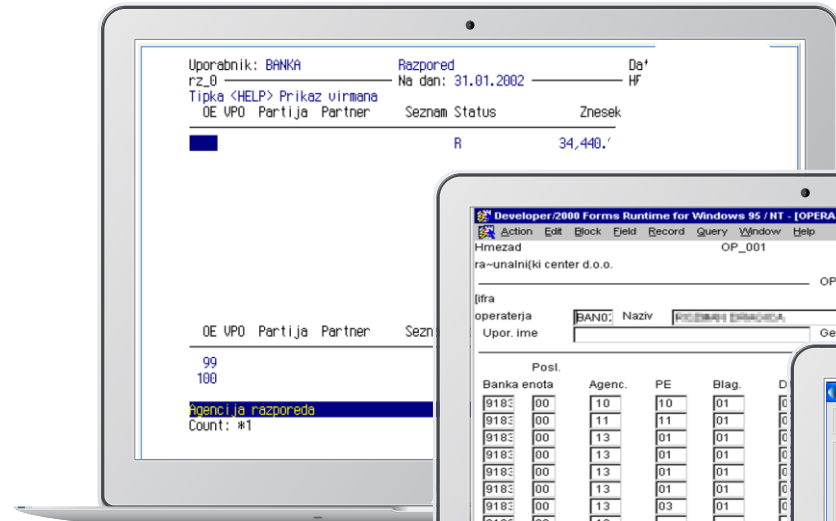


Oracle forms 6i

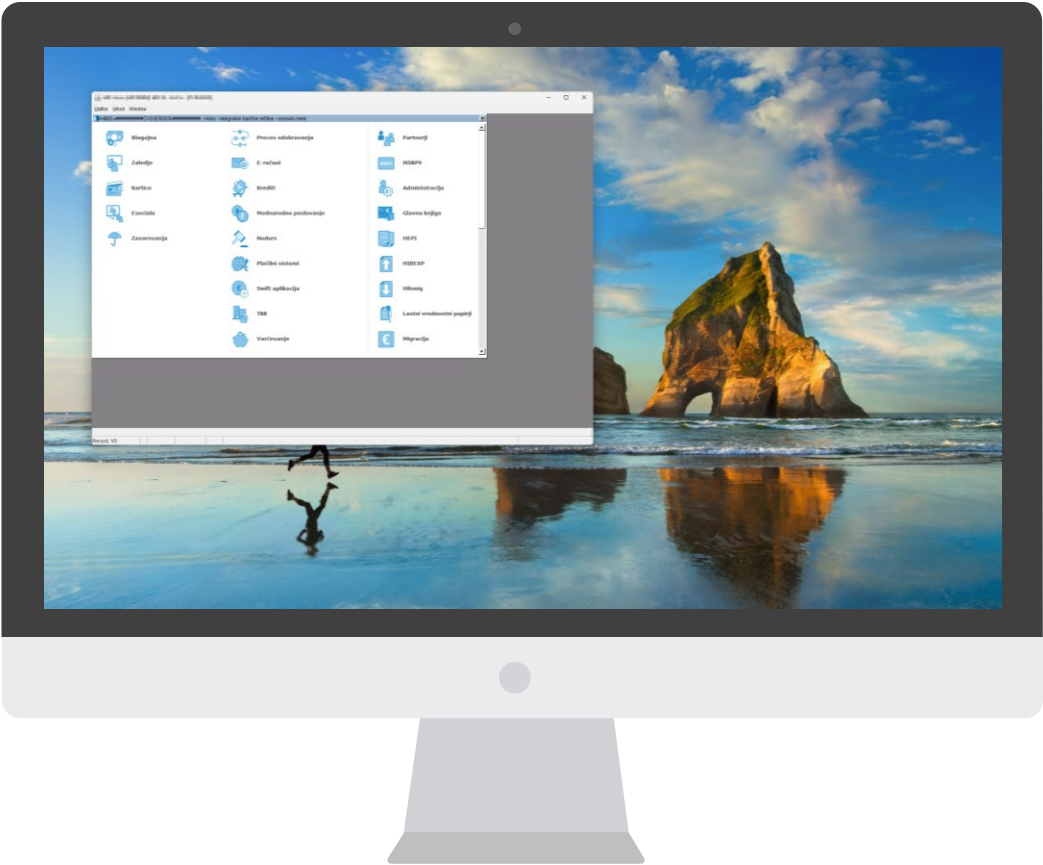
2015



Oracle forms 12c



Advantages of Oracle Forms



Rapid application development

Oracle Forms provides a low-code development environment that allows for rapid application development. It offers a variety of pre-build components and templates.



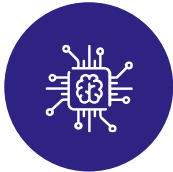
Integration with Oracle database

Oracle Forms seamlessly integrates with Oracle Database, enabling developers to leverage the full power of the database for data storage, retrieval, and manipulation.



Cross-Platform compatibility

Oracle Forms can run on different platforms, including Windows, Linux and Solaris. They are web browser independent.



Mature and stable

Oracle Forms has been on the market for several decades and has a strong community of developers and users.

Ugly Forms

Old technology

Unclear future

No responsive
design

Forms News



Michael Ferrante @OracleFormsPM · Sep 25

Interested in finding out what's going on with [#OracleForms](#)? Be sure to register and attend one or more of these events. Each will build on the previous.

forums.oracle.com/ords/apexds/po...

[@nyoug_nyc](#) [@AuraPlayer](#) [@odtug](#) [@colognedata](#) [#java](#)



Michael Ferrante @OracleFormsPM · Sep 15

[#OracleForms](#) 12.2.1.19 is now available for ALL supported platforms. All relevant documentation can be found linked from the Forms product page under "Documentation".

oracle.com/application-de...



Michael Ferrante @OracleFormsPM · Aug 15

In order to make the coming [#OracleForms](#) events for 2023 easier to find, I will be posting them on the Forms Forum. Check out the full list.

forums.oracle.com/ords/apexds/po...

[@DOAGeV](#) [@nyoug_nyc](#) [@AuraPlayer](#) [@odtug](#) [@ShayOracle](#)



Michael Ferrante @OracleFormsPM · Aug 10

I feel like next week will bring good [#OracleForms](#) news. What do you think?

New York Oracle User Group

September 26 - 12:00pm-01:00pm EDT (UTC-4) - Webinar

Why Do I Need Oracle Forms 12.2.1.19

Replay available here:

<https://u.pcloud.link/publink/show?code=XZ7PxxVZVQiPN1D94bhekl60vxxqc4JYAQOX>

Oracle Developer & Technology User Group / Oracle Partner AuraPlayer

September 28 - 12:00pm-01:00pm EDT (UTC-4) - Webinar

o Oracle Forms: Future Features that Might Blow Your Mind

o Automation, Mobility and Chat: What you never knew your Forms could do.

Replay available to ODTUG members.

<https://www.odtug.com/p/cm/ld/fid=65&tid=84&sid=15733>

New York Oracle User Group

October 10 - 12:00pm-01:00pm EDT (UTC-4) - Webinar

Life After Oracle Forms 12c - Mind Blowing Features

<https://nyoug.org/event/life-after-oracle-forms-12c>

German Oracle Users Group (DOAG)

November 21 - 3:00pm-6:00pm CET (UTC+1) - In-person

(Live conference event in Germany - conference attendance require)

- **Why Do I Need The Latest Oracle Forms**
- **Life After Oracle Forms 12c - Mind Blowing Features**
- **Q&A with Oracle's Michael Ferrante; discussing Oracle Forms with customers and developers**

<https://en.shop.doag.org/events/anwenderkonferenz/2023/agenda/#eventDay.all#textSearch.ferrante>

Evolution of the Web

The internet has inarguably been the most important technology revolution in the history of mankind

1970



Internet

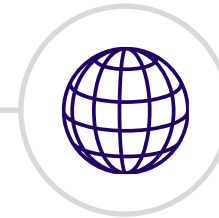
1990



Web

The first website was published

1995



Web 1.0

The first stage of the World Wide Web revolution, usually referred to as **read-only** web.

2005



Web 2.0 (Centralized)

The second stage of the evolution of the web, also called the **read-write web**. It was the phase when websites grew in terms of user interaction.

Modern standards

Modern website standards encompass a range of best practices and technologies that are commonly used in web development



Responsive web design

Responsive Web design is a standard that ensure websites adapt and respond to different screen sizes and devices.



Mobile-First approach

With the increasing use of mobile devices, the mobile-first approach has become standard practice.



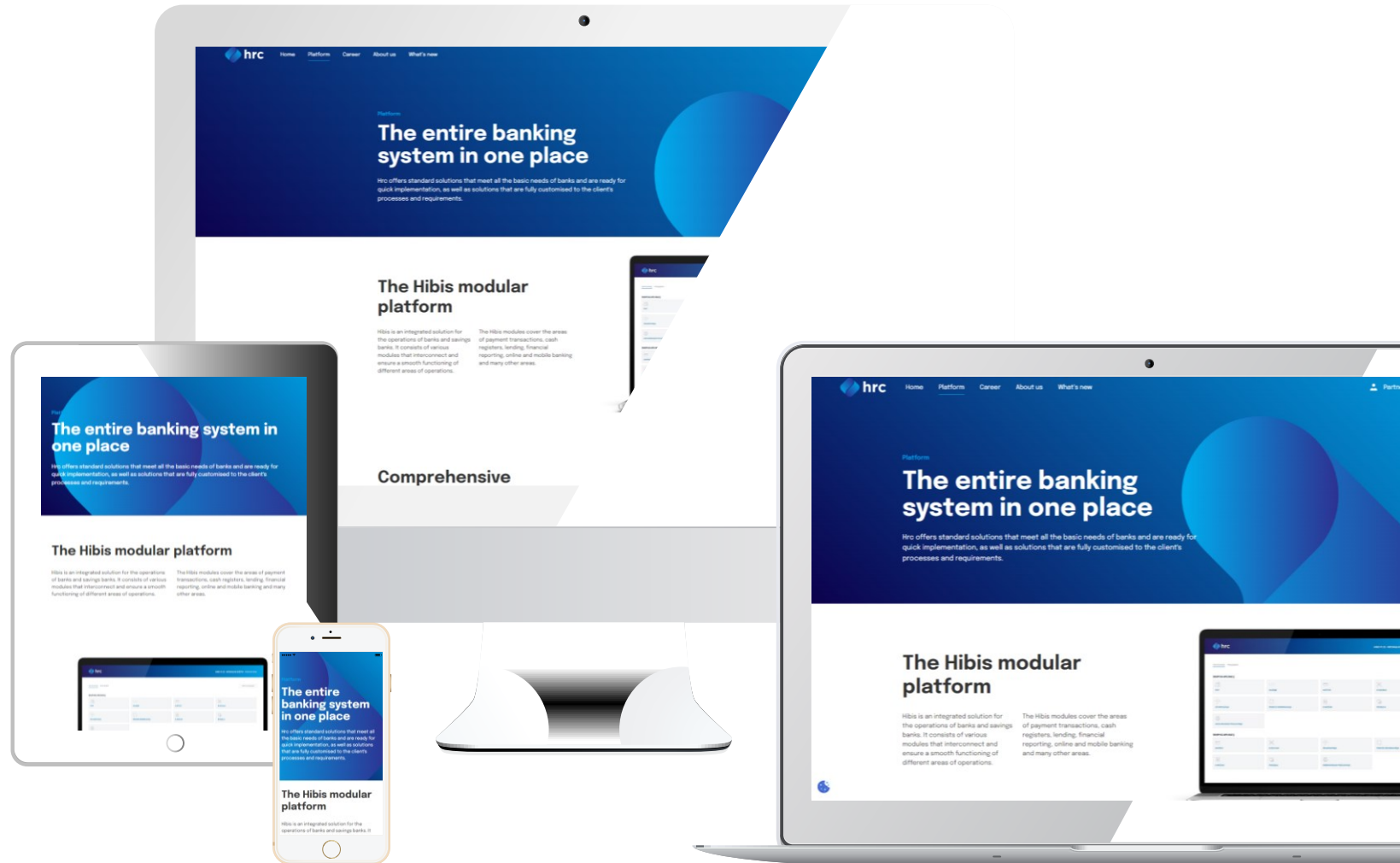
Performance optimization

Modern website standards emphasize optimizing website performance for faster loading times and better user experience.

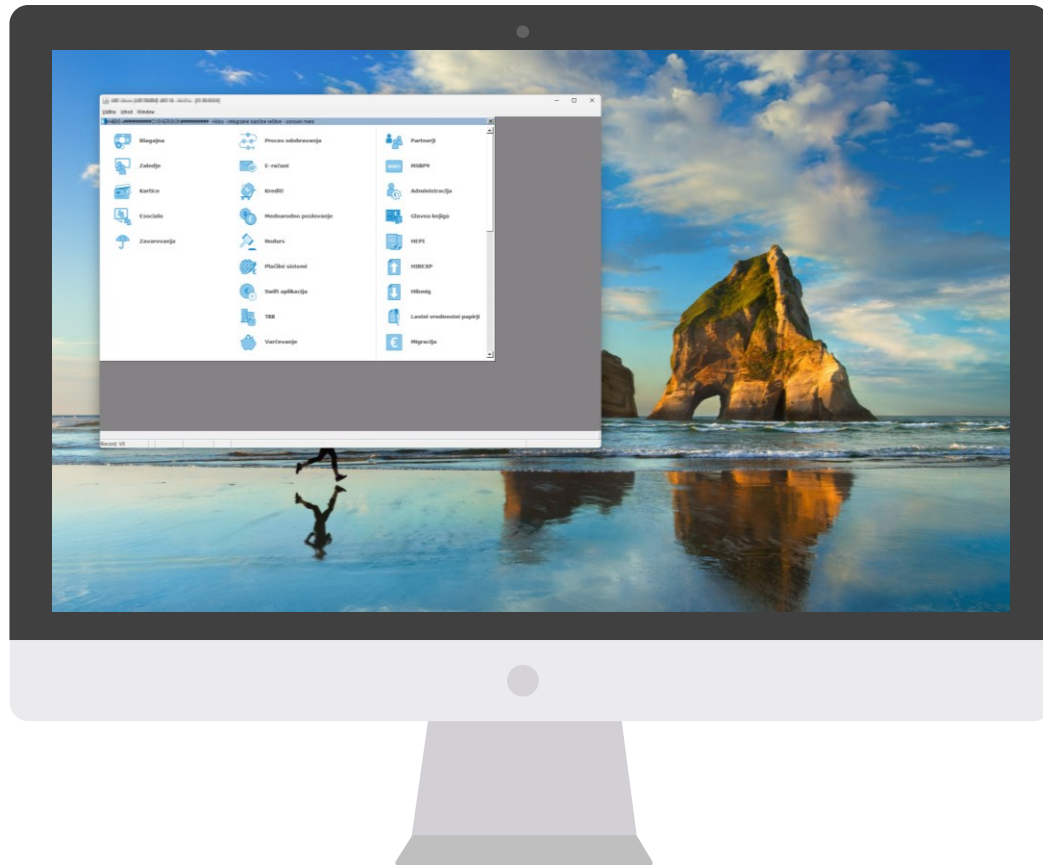


Security

Security is a critical aspect of modern website standards. Websites should implement HTTPS encryption to protect user data and transactions.



Disadvantages of Oracle Forms



Legacy technology

Oracle Forms is considered a legacy technology, meaning it has been around for a long time and may not have kept pace with newer web development frameworks and technologies.



Limited UI flexibility

Oracle Forms has a fixed set of UI components and limited flexibility in terms of user interface customization. Designing visually appealing and modern interfaces may be challenging with Oracle Forms.



Limited web integration

Although Oracle Forms can integrate with web technologies, it may not provide seamless integration with modern web frameworks and APIs.



Maintenance and support

As Oracle Forms is a mature technology, the availability of resources, documentation, and community support may be relatively limited compared to more popular and actively developed frameworks.

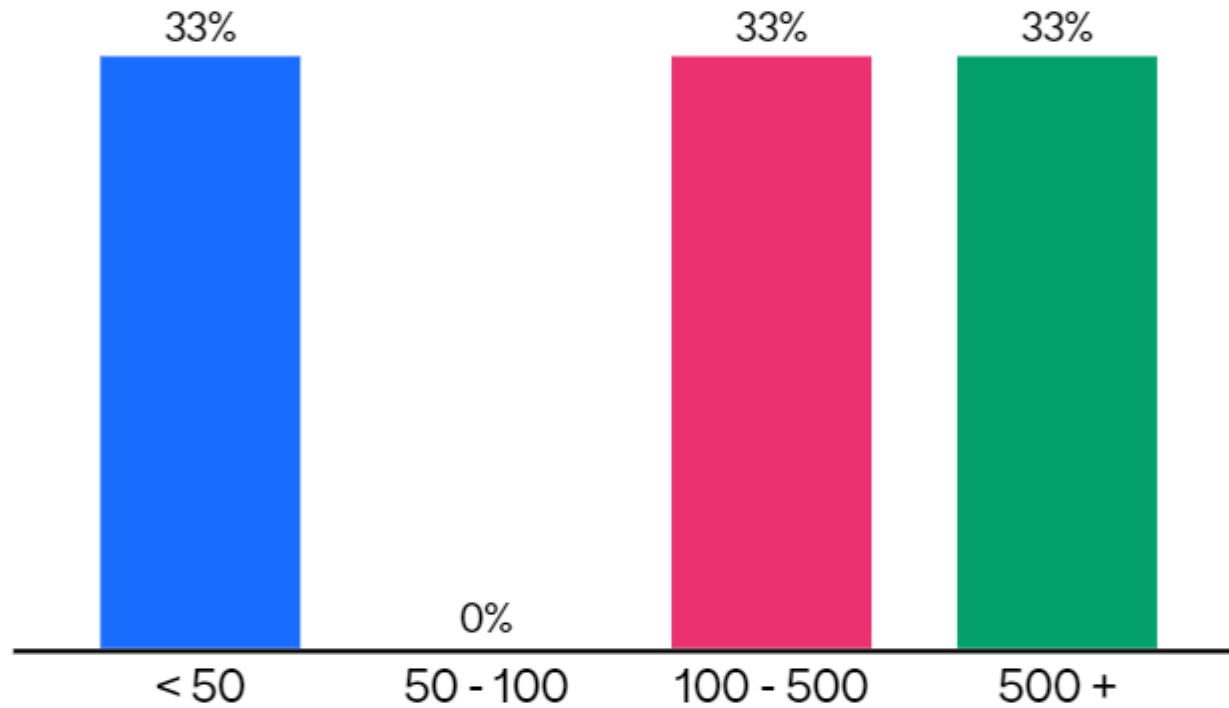


**Change in
technology is
imminent**

Join at menti.com using code **3175 7897**

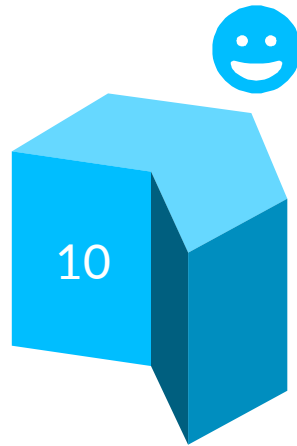


How many Oracle Forms do you have?



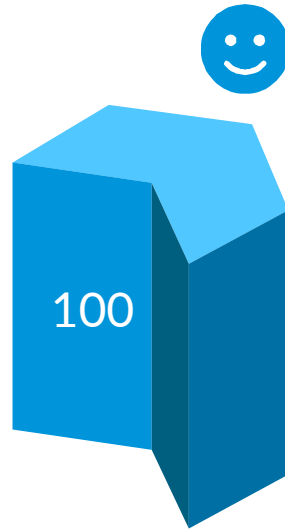
Big bang migration?

Is it so simple to migrate?



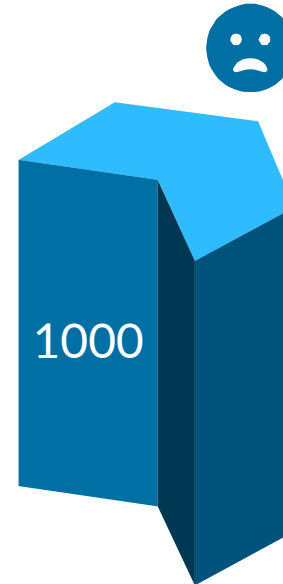
10 Oracle Forms

No problem. Analyze, migrate, test, deploy and use.



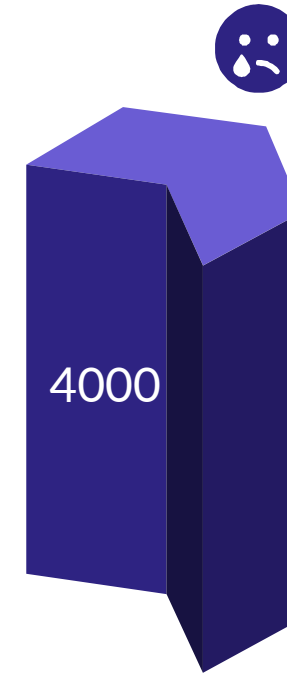
100 Oracle Forms

It's still OK but it will take some time to finish.



1000 Oracle Forms

With a big bang it is almost impossible.



4000 Oracle Forms

It takes a very long time and a big team to analyze, develop and test, so a lot of front end in a short time.



Migration **goals**



Improve user experience

Ensuring a seamless transition from old systems to new ones. It involves preserving familiarity, minimizing disruptions, and optimizing usability.



Renovation

Provides an opportunity to revamp and improve existing systems. During front-end renovation, outdated design elements, user interfaces, and functionalities are overhauled to align with contemporary standards and trends.



Automatic migration

This significantly reduces the time, effort, and potential errors associated with manual migration. This not only streamlines the migration process but also ensures that users can continue to interact with familiar interfaces, maintaining a consistent user experience.



Preserve functionality

It ensures that essential features and capabilities from the old system are seamlessly transferred to the new environment, guaranteeing continuity and a positive user experience.



Responsive design

The goal is to ensure that data and functionality seamlessly adapt to the new system's structure and requirements, preserving usability and accessibility while undergoing the migration process.

Oracle Forms

Years of use in the business world



Easy to use

Users know all the tricks. When something goes wrong, they know how to do a workaround.



Familiar design and functionality

They know how to use key shortcuts. Data is entered quickly.



They don't want change

Users usually don't want any changes. All they need to do is their job at work.





Modern user interfaces



Complex adaptation

Experienced Oracle Forms users find it more difficult to adapt.



Fear of new tech

When a user sees new tech, they are usually scared and don't know how to proceed.



No time to learn new tech

They don't want to learn or adapt to new technology because they just want to do their job.



Not aware of new tech

Users are not aware of new technology. Usability is the same or similar as in Oracle Forms.



Work is done as before

The work that needs to be done is done in the same way as before. Users don't need to learn new things.



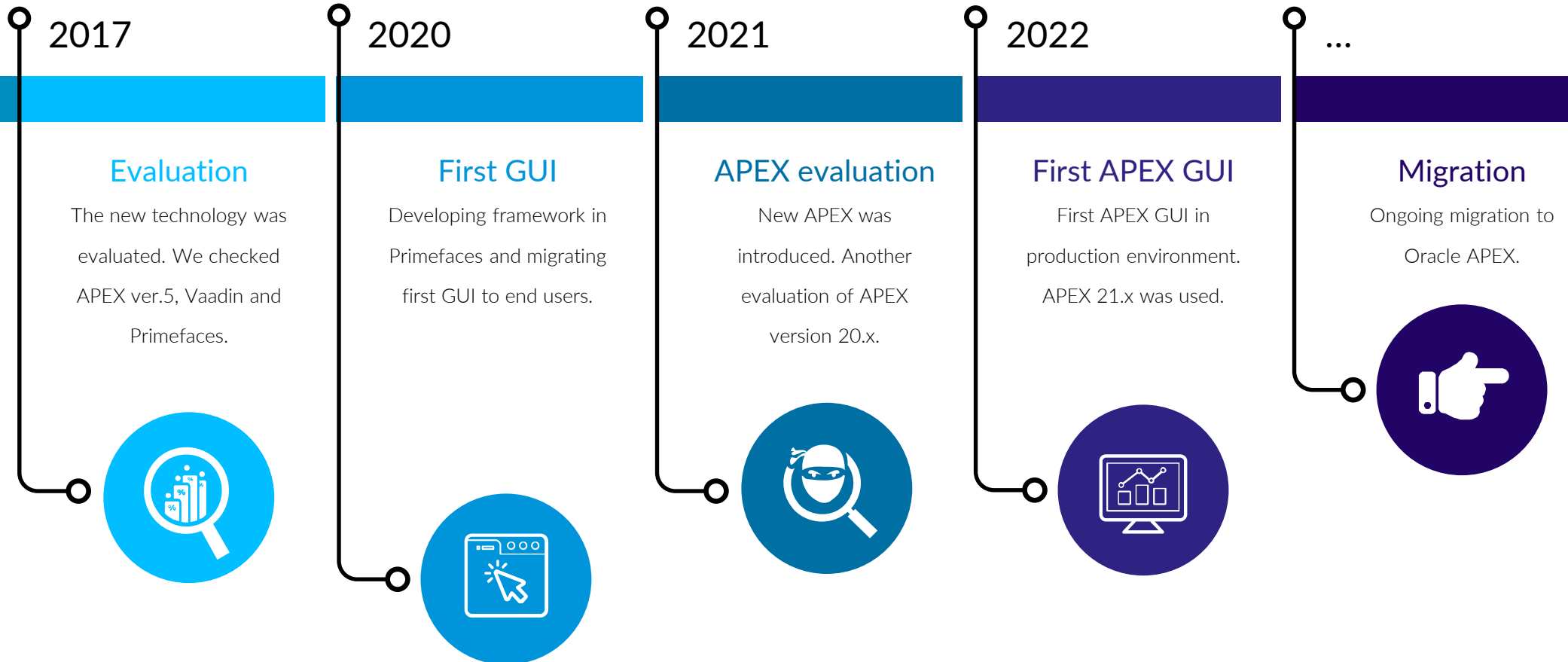
Greater flexibility and optimal utilization

The hybrid approach in building a user interface enables greater flexibility and optimal utilization of various development options, which can lead to a better user experience and increased software development efficiency.

The path to hybrid

Our path to hybrid

This is our path to the new front-end



Migration process



1

Analysis of existing front-ends and usage

Checking throw statistics if front-end is still in use and collaborate with users if some front-ends can be merged.

2

Code analysis and cleanup preparation (pitss.com)

With the pitss.com tool we can analyze the amount of code in all user interfaces. This is the starting point in evaluating how big the project is.

3

Migration of user interaces

We divide the user interface into three difficulty levels. We migrate them sequentially.

4

Testing on development environments

When the migrated user interface is developed, our technologies test it.

5

Testing on customer test environments

When testing is done in our development environment, we then deploy and activate at the customer's location.

6

Deploy to production environment

Finally, when the customer is satisfied with their new user interface, we deploy it in the production environment.

Our current Oracle Forms product



**Oracle
forms**

Not customizable

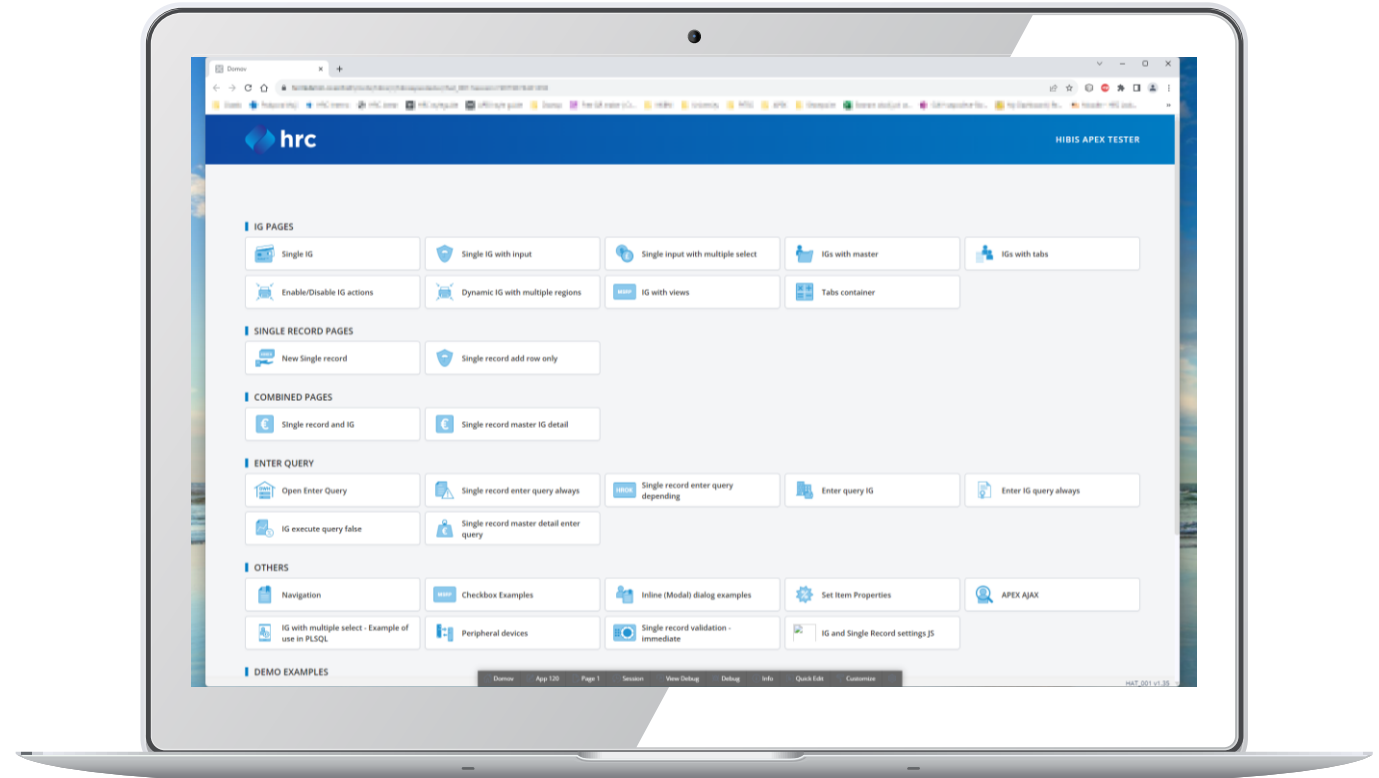


APEX in browser



APEX front-end in browser

Fully customizable

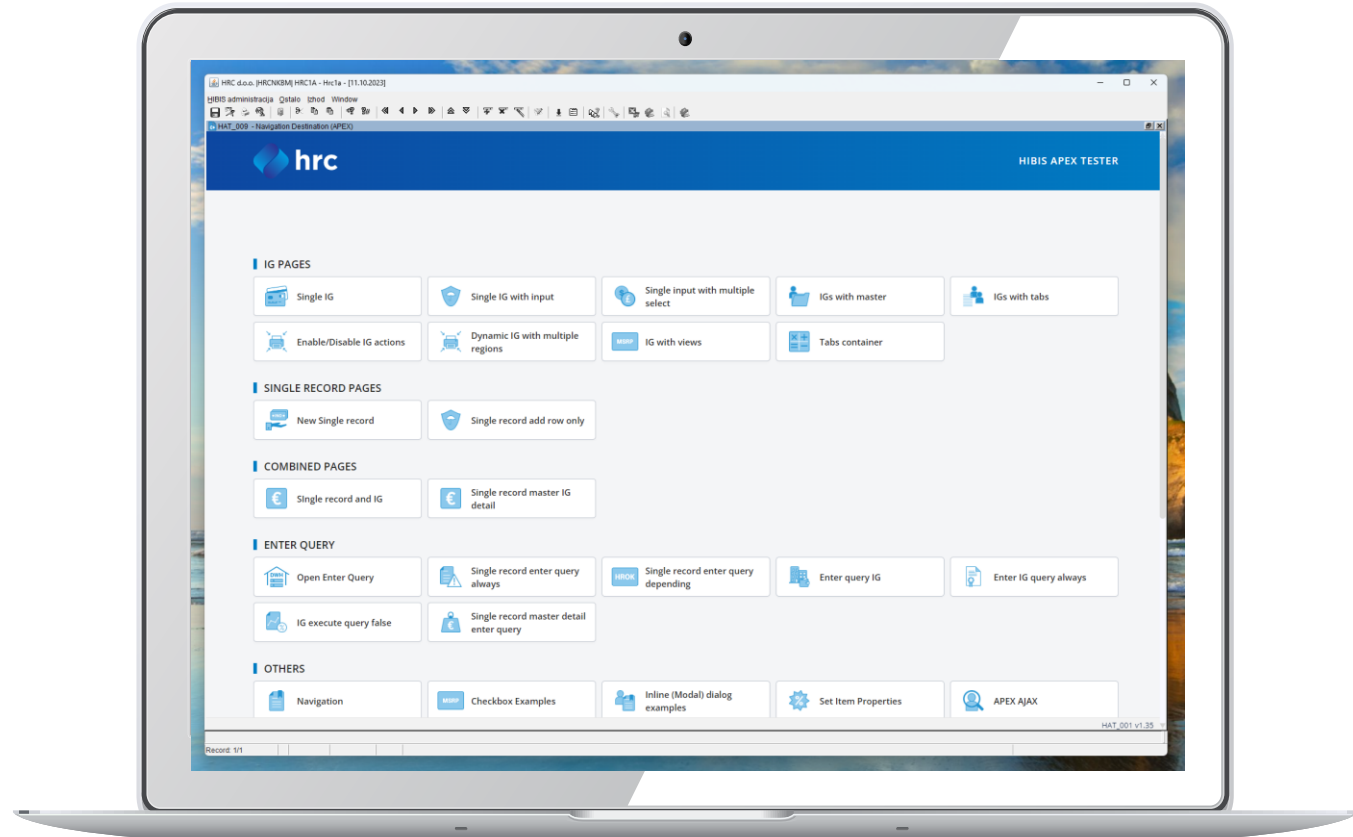


Hybrid



APEX in hybrid

Adaptation



Why APEX ?



Low Code

It is a low code environment. Developers from Oracle Forms can quickly adapt to the new development.



Business logic

Business logic is already in the database. You can use PL/SQL also in APEX.



Programmers

The number of PL/SQL programmers in our company is greater than Java programmers.



What have we searched for?

We searched for a low code environment, that can we quickly adapt.

Hybrid View



Java webview

Good - own implementation

Bad - It is dependent on the local Java version, which in our case is very different. On some clients, Java is restricted to an update.

JxBrowser

Good - integrated chromium engine. It is fast to render front-end. One version for all clients.

Bad - it is quite a big file to download when using for the first time. Some end users have a really really slow internet connection.



The simplest solution is almost always the best

William of Ockham

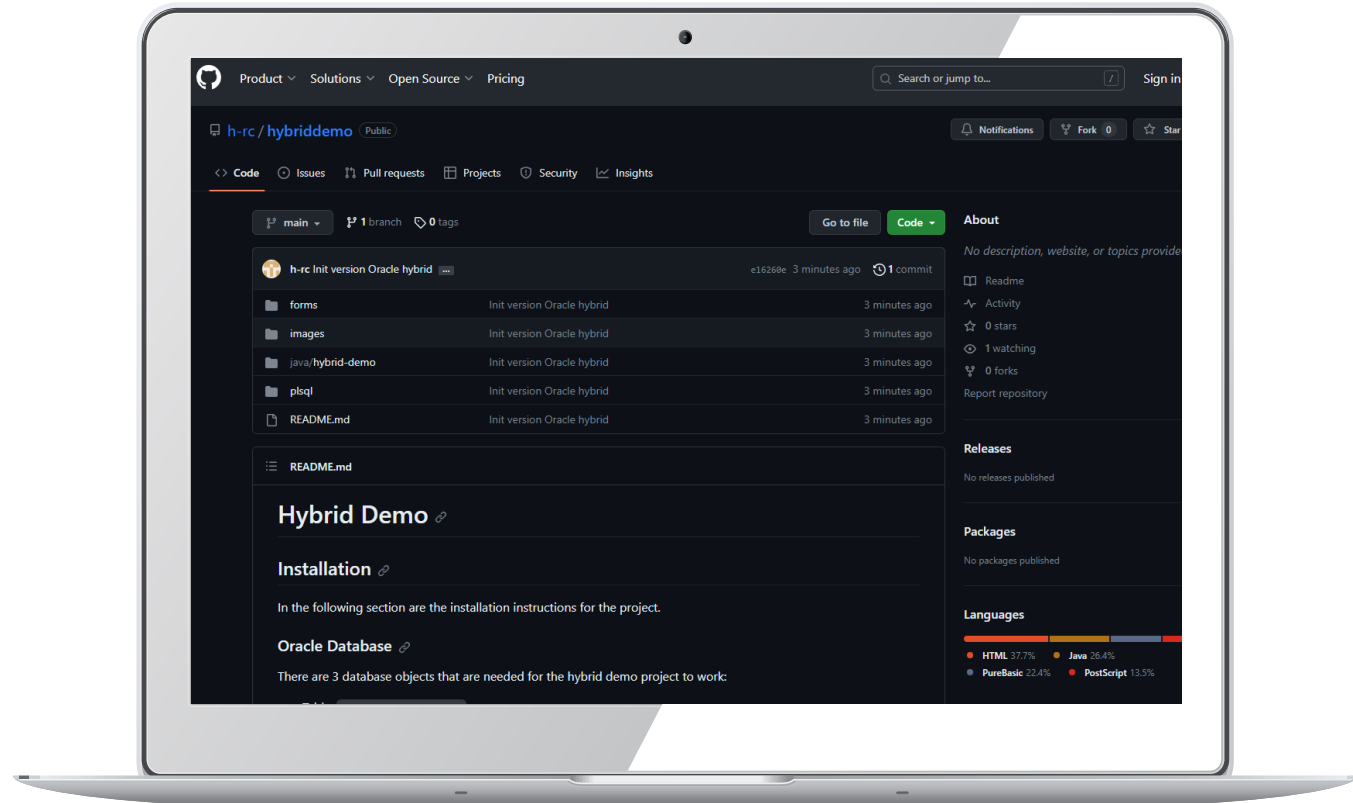
Simple DEMO



Demo available on GitHub



<https://github.com/h-rc/hybriddemo>



Our challenges



Differing Architecture

APEX is web-based, while Forms is a client-server, requiring a fundamental shift in architecture.

User experience

We developed a way to use shortcuts in both worlds.

UI Transformation

Adapting Forms' traditional UI to APEX's modern and responsive design can be time-consuming.

Code Conversion

PL/SQL code in Forms may need significant modifications to functions in APEX.



Cleaning code

Code on Oracle Forms had to be cleaned and moved to a database.

RPA

Robots can't be used in hybrid.

Session challenges

We had to ensure that session variables in forms and APEX are in the same state for the needs of hybrid.

User Training

Users who are familiar with Oracle Forms may need to adapt to the new APEX interface.



Strengths

There is no need for a big bang approach.
The user is not aware of new technology.
Using the same shortcuts.
Consistent Experience.



Weaknesses

Limited set of functionality because we focus on migration.
No support for RPA.
The hybrid approach may restrict customization of the interface.



Opportunities

Immediate Use of new technology for new front-end.
Continuous adaptation of users to new technology.



Threats

The implementation may mislead into a later switch to the browser.
The hybrid approach may limit access to certain features and capabilities, potentially affecting the user experience.

**Hard to say goodbye to
Oracle Forms?**



Questions?