

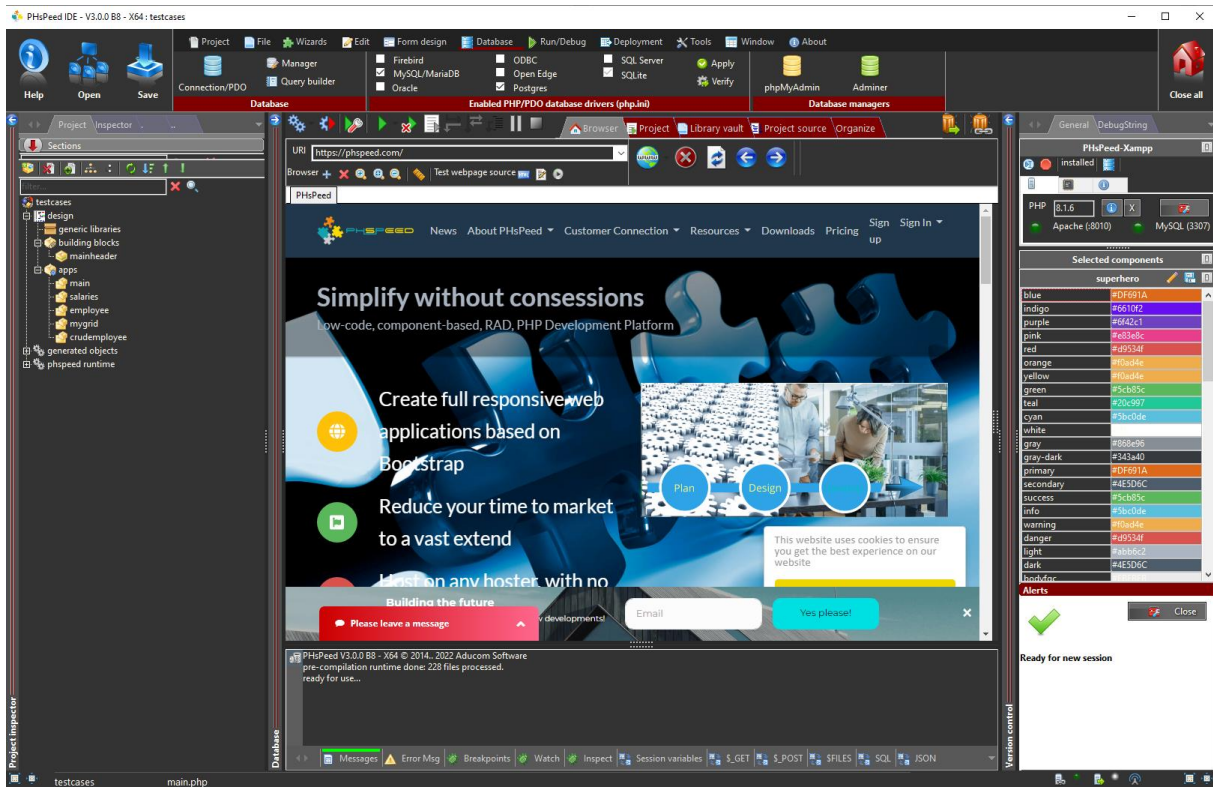
# PHsPeed Introduction

Application Wizards (Let's speed things up!)





## PHsPEED: Getting Started



Welcome to the world of PHsPEED! Our low-code PHP development tool is designed to help you work faster and smarter, aligning with the modern approach to web application development.

In the previous documents, we discussed the fundamental features of the Integrated Development Environment (IDE) and created the first basic PHsPEED project showing 'hello world'.

Many projects require some grids, forms, and crud applications. In this document, we will gradually move on to developing more advanced database-aware applications, utilizing the internal wizards provided by the IDE.

The purpose of this document is to guide you through the steps involved in building your initial applications. We will provide clear instructions and examples to help you grasp the concepts and gain hands-on experience with the IDE.

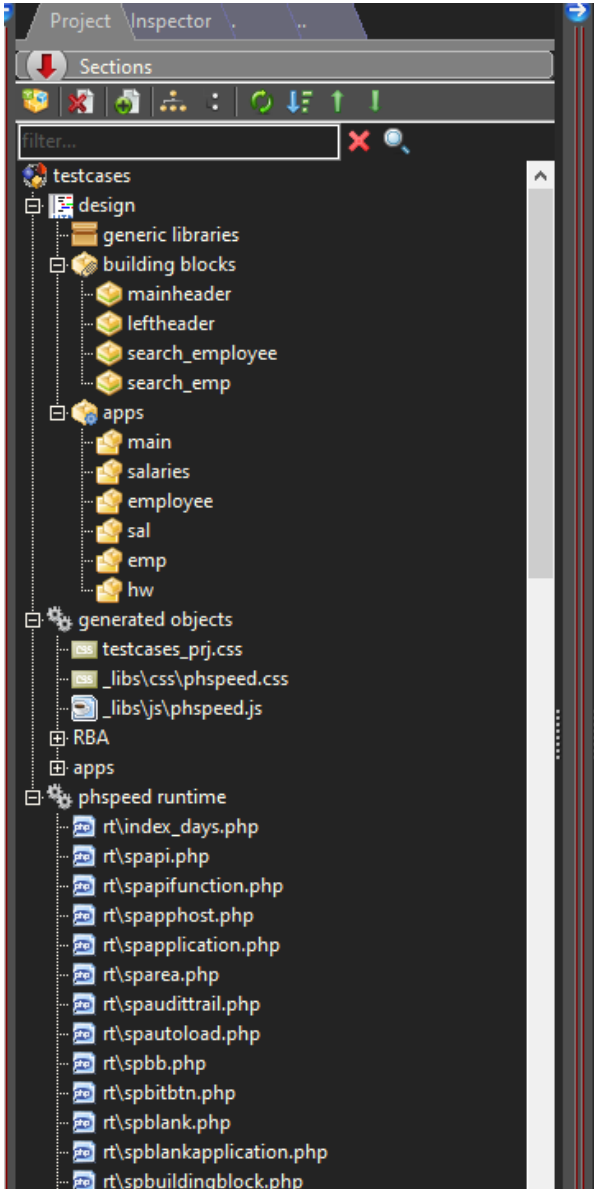
### Demo database

In the previous document, we covered the process of setting up a database. However, if you wish to connect to your own database, you must configure the database connection settings. Typically, this setup process only needs to be done once since the database connections are independent of specific projects.

For the purpose of this document, we will utilize the pre-configured Employees database, which is readily available and ready for use.

## Concept: PHSpeed project structure

We created a simple project for the 'hello world' example in the previous document, and we did not pay much attention to the project tree. The project tree represents the structure of your project and consists of various entries:



- **Generic Libraries**

This section displays any libraries you have developed that can be utilized within your project. Libraries can be categorized as either private (specific to your project) or public (usable across multiple projects).

- **Building Blocks**

Specific modules, such as menus and lookup searches, are designed to be reusable across multiple applications. These building blocks are generated as PHP classes.

- **Apps**

This section displays the executable applications within your project. It is where you build your applications and define their functionality.

- **Generated Objects**

Here, you can find all the generated code, including PHP, CSS, HTML, and JavaScript. Under the 'RBA' node, you will find the modules related to Role-based Access if you have defined them. These will be further described in subsequent sections. You will find your applications and components under the 'apps' tree node. Applications are generated as PHP executables, while components of your forms lead to PHP class files.

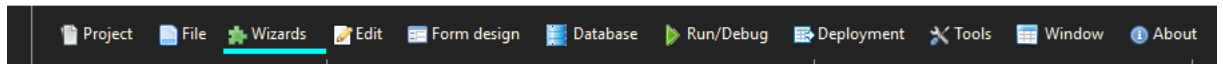
- **PHP Runtime**

This section contains the runtime files used by PHSpeed to ensure the proper functioning of your application. These files are accessible and available for you to read. However, please note that they are not open-source, and a valid PHSpeed license is required to use them.

### Adding building blocks and apps.

In the PHSpeed platform, you have various ways to add all kinds of building blocks and apps to your project. Here are the steps you can follow:

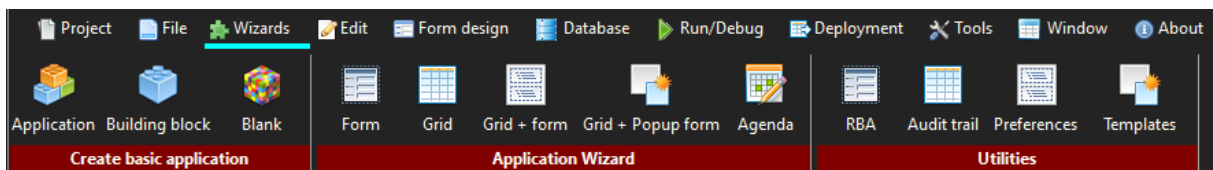
- Look for the 'wizards' option within the menu tab. Clicking on this option will open the wizards section.



Alternatively, you can directly click on either 'building blocks' or 'apps' in the menu. Both options will have the same effect of opening the wizard's section.

- Once you are in the wizard's section, you will find various options to help you get started with specific modules. In this document, the focus is on the following options:
  - Form: This option lets you add a form module to your project. A form is typically used to collect and submit data from users. It provides a structured way to input information and interact with your application.
  - Grid: By selecting the grid option, you can add a grid module to your project. A grid is a visual representation of data in rows and columns. It helps display tabular data or organize information in a structured manner.
  - Grid with Form: This option combines the functionalities of both the grid and form modules. It allows you to create a grid with a form within each row. This option is helpful when you need to display data in a grid format and will enable you to edit or add new records using a form.
  - Grid with Popup Form: Similar to the previous option, this choice combines a grid with a form. However, instead of displaying the form directly within the grid, it opens as a popup window when interacting with a specific row or element. This option can be useful to keep the grid layout clean and provide a more focused editing experience.

These options provide a starting point for creating different modules in your PHsSpeed project. You can choose the one that best suits your needs and customize it further to match your application requirements.



### Application Wizard

In PHsSpeed, the application wizard follows a consistent structure for all modules. Here are the general steps involved:

- **Database Connection**  
The first step in the application wizard is to provide a database connection. By default, the project settings are used, which means the wizard will automatically use the database connection specified in the project configuration. However, you also have the option to choose a different database connection if needed.

- **Database Table Selection**

After setting up the database connection, you will be presented with a drop-down list containing available database tables. You must select the appropriate table corresponding to the module you want to create. This table will serve as the data source for your module.

- **Configuration Options**

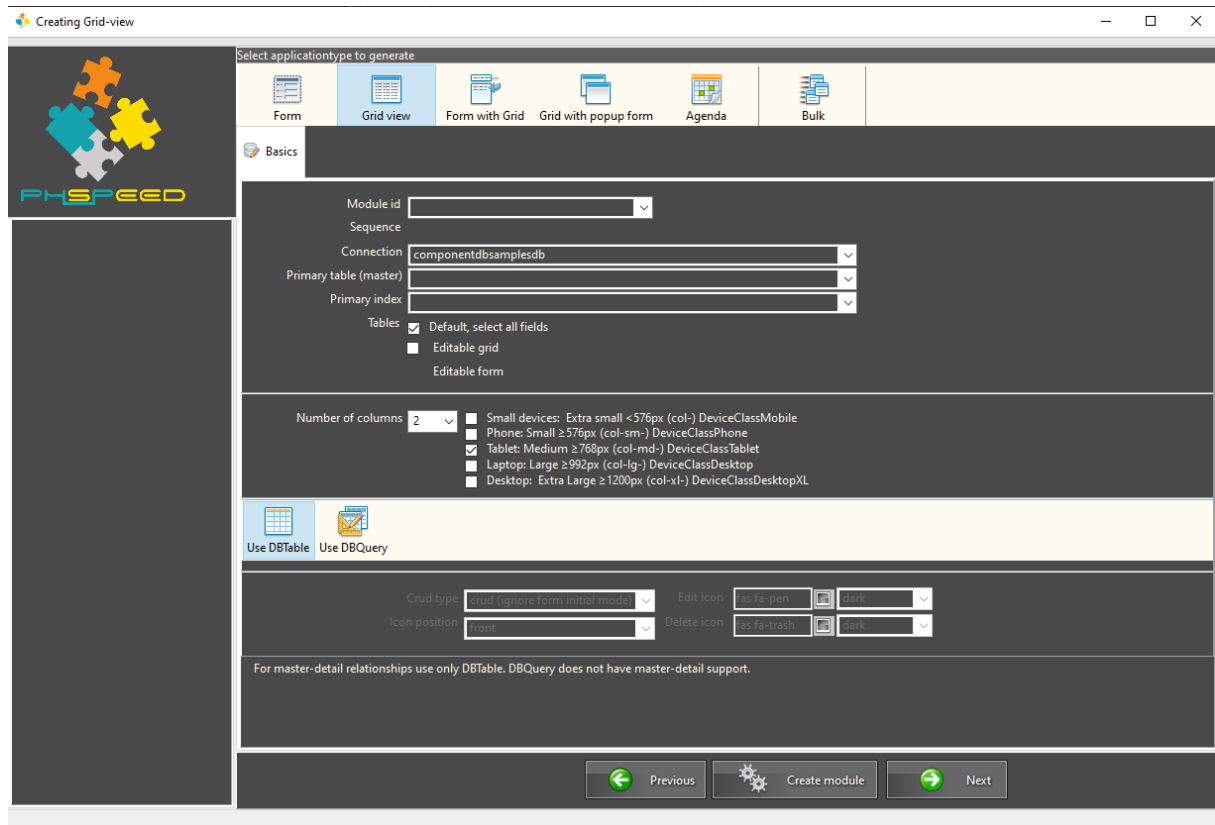
Once you have selected the database table, you can set additional options based on your requirements. These options may vary depending on the specific module you are creating. For example, if you are creating a form module, you might have options to customize the layout, input validation, or field mappings. The available configuration options will be presented to you within the wizard.

- **Module Creation**

After providing the necessary configuration options, you can proceed to create the module. The wizard will generate the code and create the required files and components to implement the module based on the selected table and options. This process is automated and designed to save you time, allowing you to create fully functional CRUD (Create, Read, Update, Delete) applications within minutes.

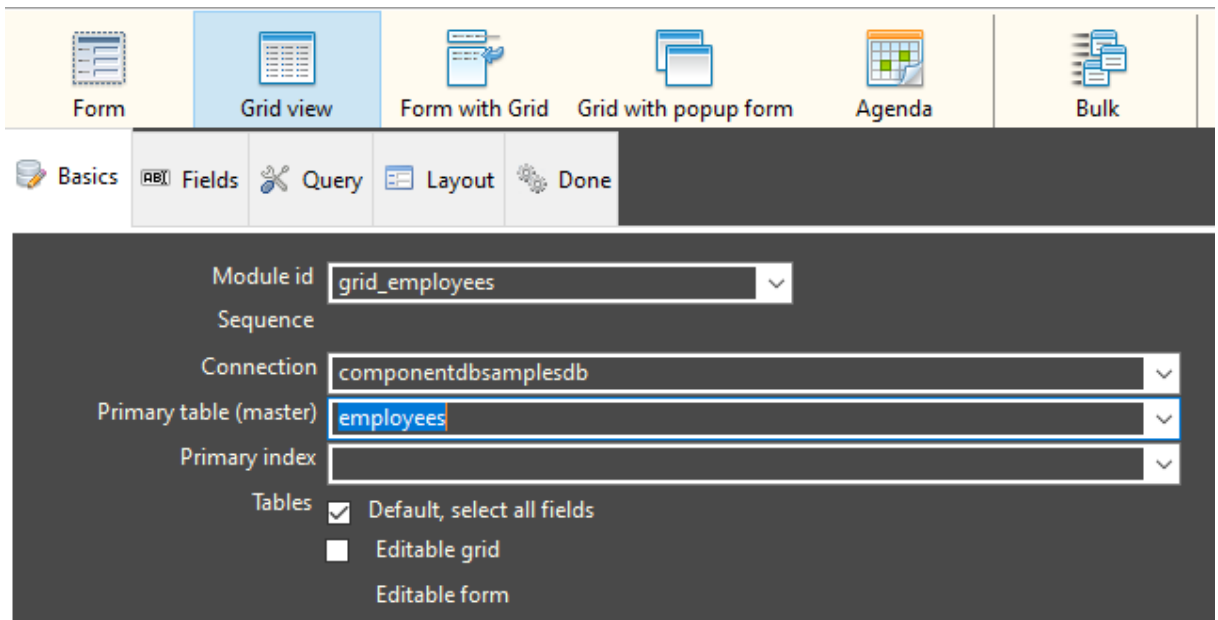
Following this structured approach in the application wizard, you can quickly generate modules that interact with your database tables. The wizard handles the code generation and sets up the basic functionality, allowing you to focus on customizing and refining the generated module to meet your specific application needs.

### Creating a database grid

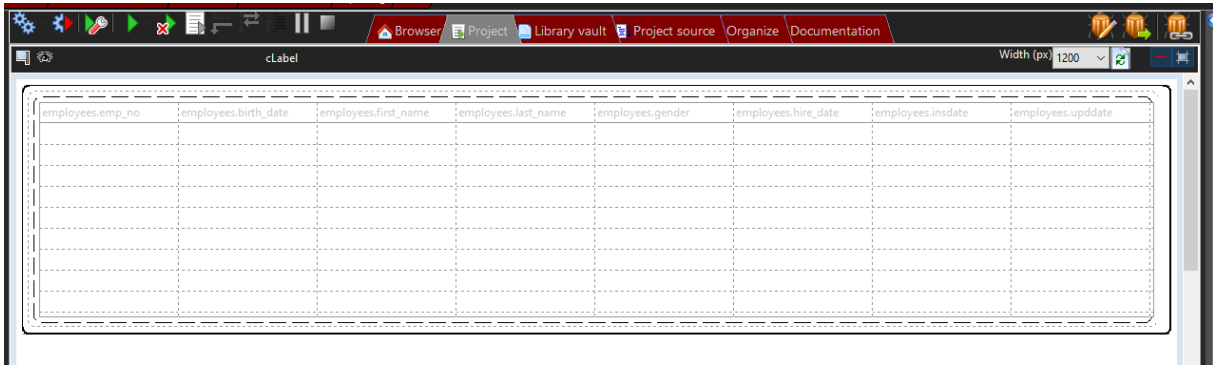


To open the Grid Wizard and create a module using the provided steps, follow these instructions:

- Find the wizard menu item and click on the 'Grid' option. This option will open the Grid Wizard.
- In the Grid Wizard, you will be prompted to enter a unique name for the module you wish to create. Choose a name that represents the purpose of the module effectively.
- The Connection field will be pre-filled with the default database connection defined in the project preferences. You can modify this field accordingly if you want to use a different connection. However, if the default connection is appropriate for your needs, you can proceed without making any changes.
- Next, you will need to select the 'employees' table from the list of available tables. This table will serve as the data source for your grid module.
- Once you have entered the module name and selected the 'employees' table, verify that all the settings are correct and ensure that you have made any desired customizations or adjustments to the module configuration.
- Finally, click the 'Create module' button to generate the code and create the necessary files for the grid module based on the provided specifications.



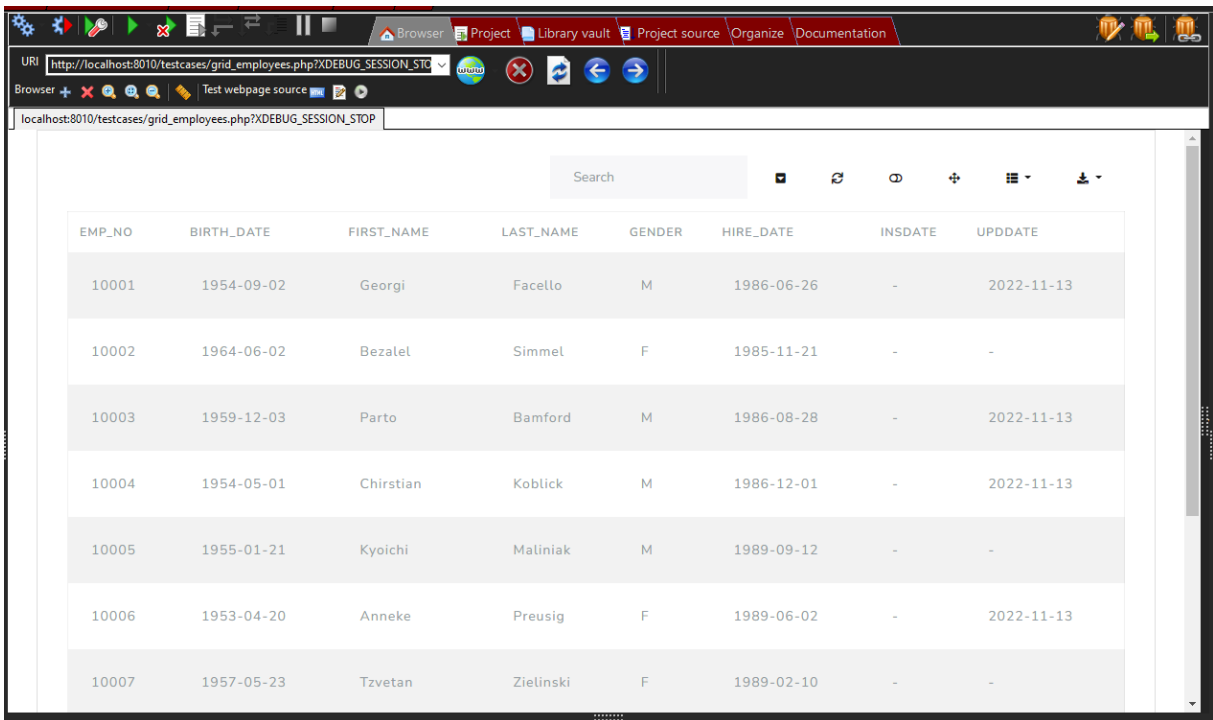
The Grid Wizard will handle the code generation process, creating the grid module for you. After completing the process, you can further customize and refine the generated module to suit your specific requirements. Select the newly generated application in your project tree. It should look something like this:



Now click on the generate and run button



The final result will look something like this:



There are many ways to configure this output, but we'll get into that later in this series.

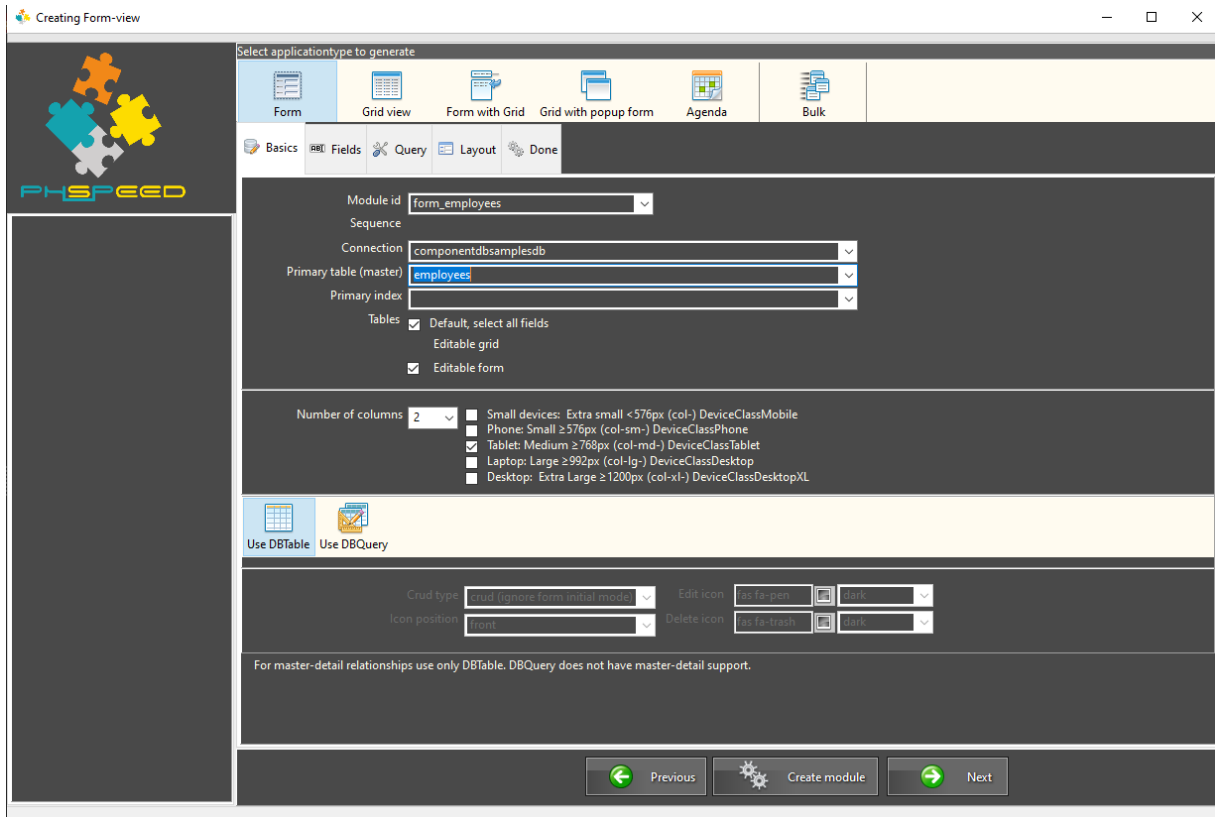
### Creating a Crud form

In this section, I will guide you through the process of creating a CRUD (Create, Read, Update, Delete) form using a database table. The steps involved are quite similar to creating a grid. Here's an overview of the process:

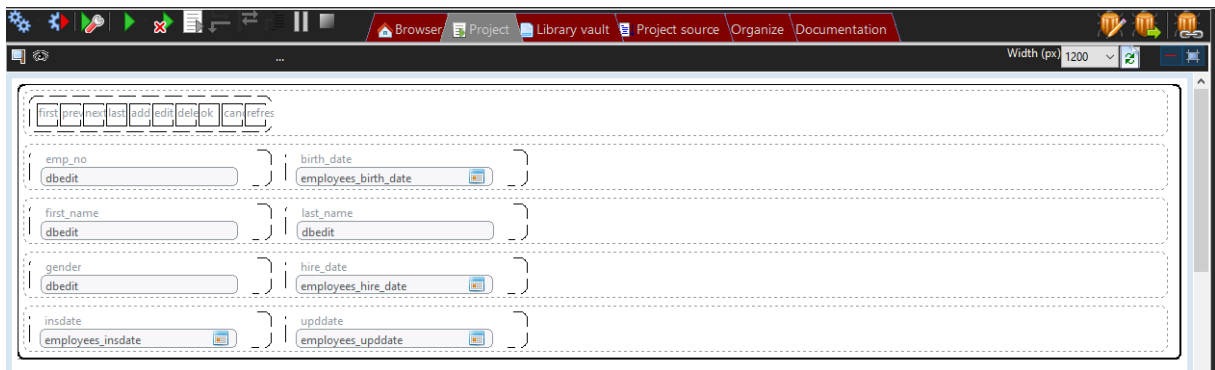
Connect to the database:           Begin by establishing a connection to the database where your table resides.

Select the required table:        Select the table to be used from the pulldown field.

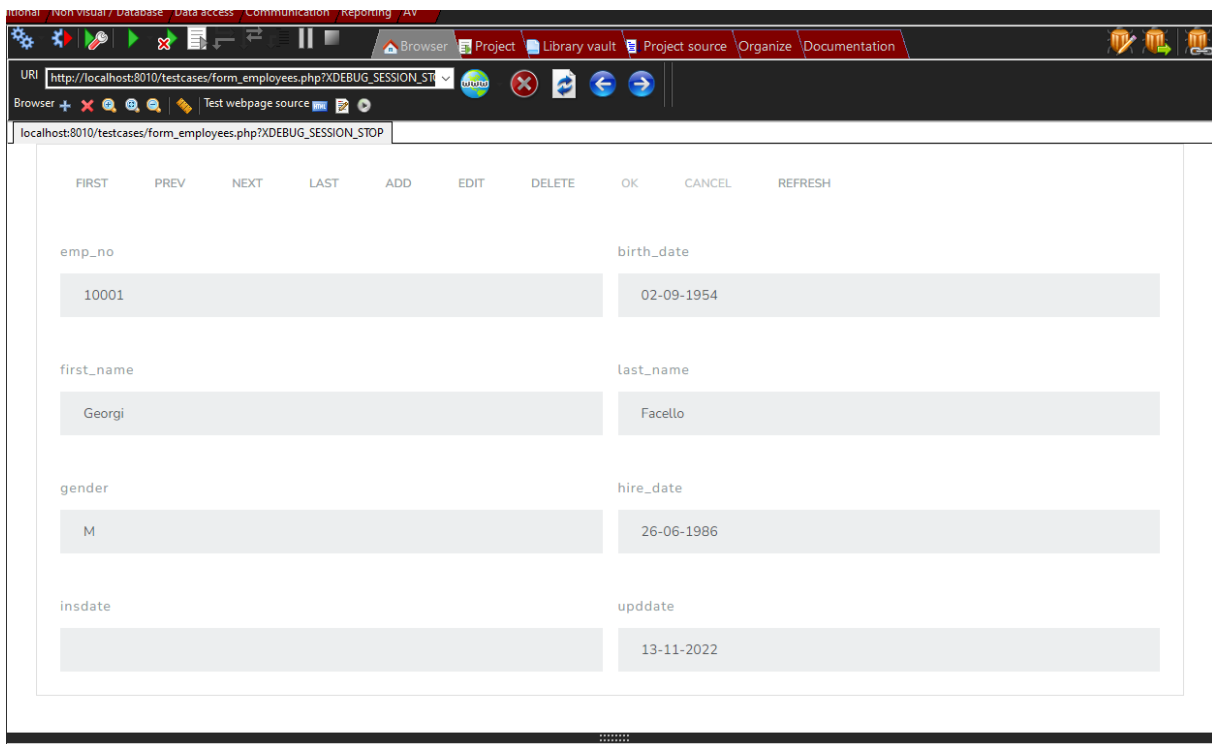
Generate application: Use the generate and run button to generate and run the application.



The result will be something like this:







The basic functions of the toolbar are:

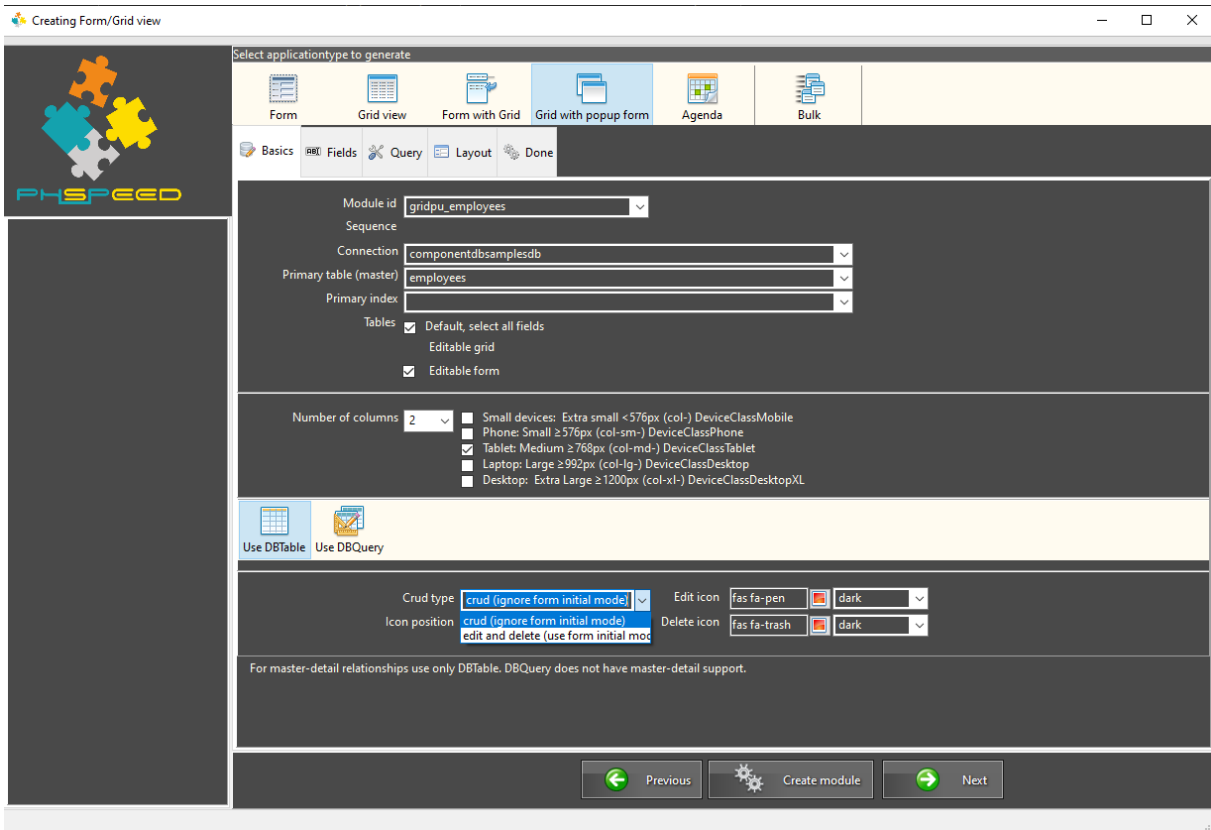
- **First**  
Show first record
- **Prev**  
Show previous record
- **Next**  
Show next record
- **Last**  
Show last record
- **Add**  
Add a new record. An empty record is shown and the ok and cancel buttons become accessible to accept or deny the input.
- **Edit**  
Allows to update a record. The current record becomes editable and the ok and cancel buttons become active. Choose ok to accept the changes or cancel to deny
- **Delete**  
Allows to delete a record. The ok and cancel buttons become active. Choose ok to accept the deletion or cancel to deny

There are many options to change the toolbar, add icons, add an additional 'are you sure' option etc. We will explain those later.

### Creating a grid with a popup form

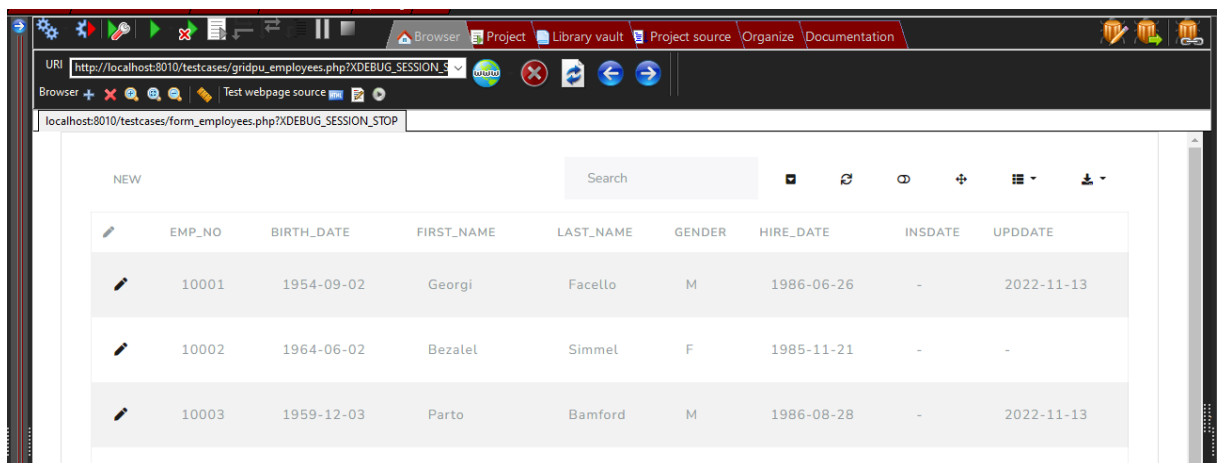
In this section, we will explore the process of creating a grid with a popup form that allows users to perform CRUD (Create, Read, Update, Delete) operations. This approach differs slightly from the Grid

with Form option, where the form is displayed above or below the grid. Instead, in this case, the CRUD operation is presented within a popup form.

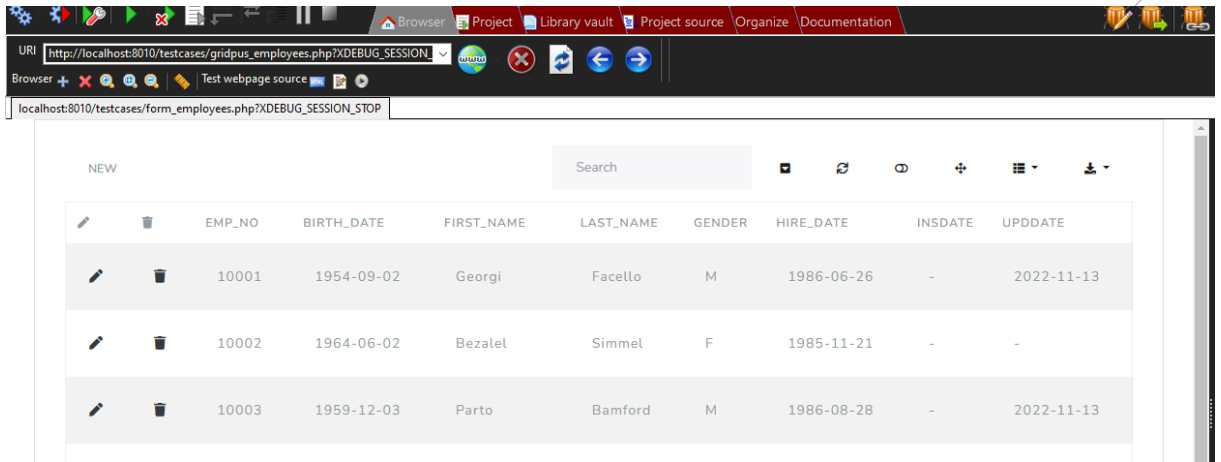


The grid can have two Crud types:

- Crud**  
 This option will put an edit icon on the rows to allow Crud operations. Clicking on the icon will pop up the form and enable the user to perform all the required Crud operations.



- Edit and delete**  
 This option will put two icons on the rows to allow the edit and/or delete of the record. Adding records can only be performed by the Add button.



In both cases, the form will show as described under the 'creating a crud form'. The toolbar will adapt to the chosen model.