

## KOMPUTASI AWAN



Oleh :

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1941720231

TI 3F

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# 07 - SaaS (Software as a Service)
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## Tujuan Pembelajaran
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1. Mengetahui layanan Oracle Cloud Infrastructure Software as a Service.
2. Mampu menggunakan layanan software layanan oracle.

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## Hasil Praktikum
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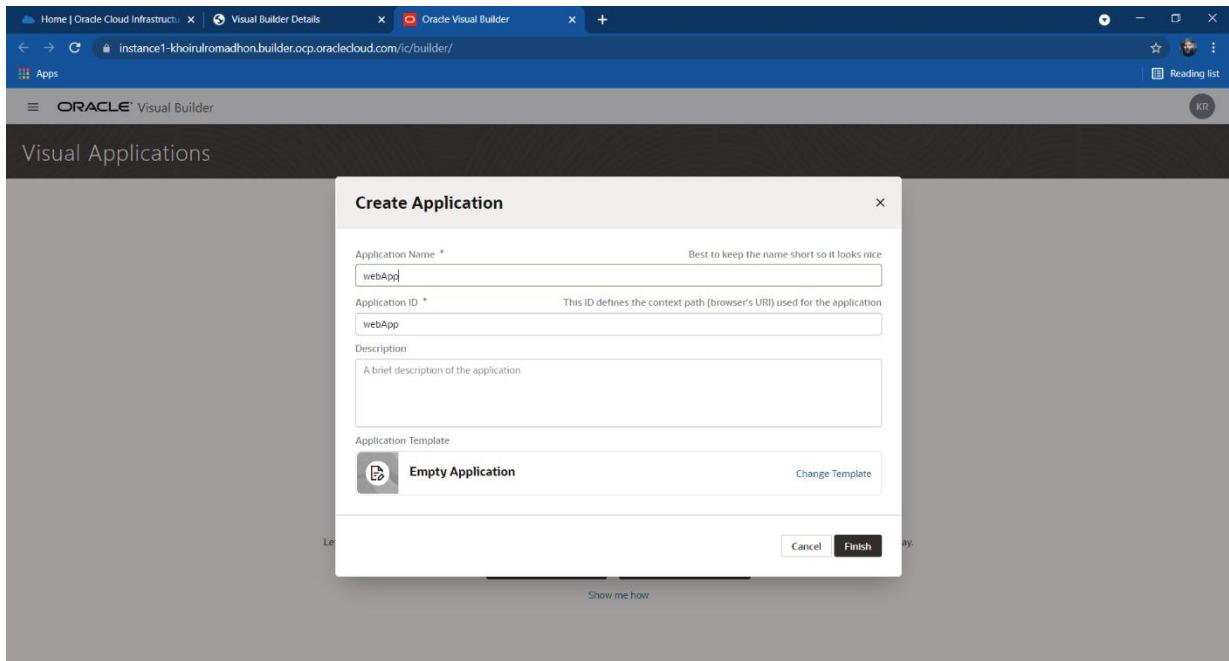
Berikut ini adalah bukti telah berhasil login ke halaman beranda akun oracle cloud.

The screenshot shows the Oracle Cloud Infrastructure Visual Builder Details page for an instance named 'instance1'. The URL in the browser is [psm-cacc1-68f944044d8d45aeb16cfe2cd5a7f260.console.oraclecloud.com/psmu/faces/paasRunner.jsp?serviceType=VBINST](https://psm-cacc1-68f944044d8d45aeb16cfe2cd5a7f260.console.oraclecloud.com/psmu/faces/paasRunner.jsp?serviceType=VBINST). The page displays the instance overview with the following details:

| Status  | Ready                    |
|---|--------------------------|
| Active  | Yes                      |
| Optional. Select only if you received a special tag from Oracle for creating this instance. | false                    |
| Special Tag   | ics_pcs                  |
| IDCS Application  | VBINST_instance1         |
| License   | Cloud License            |
| Version   | 21.3.3.210805.1400-41912 |
| Feature Set   | Integration and Process  |
| Service Identifier  | 613459395                |
| Visual Builder Edition  | Enterprise Edition       |

The screenshot shows the Oracle Visual Builder application dashboard. The URL in the browser is [instance1-khoirulromadhon.builder.ocp.oraclecloud.com/ic/builder/](https://instance1-khoirulromadhon.builder.ocp.oraclecloud.com/ic/builder/). The page displays a welcome message and a central illustration of a potted plant with a small shovel. Below the illustration, it says "You don't have any applications yet." and provides a brief description: "Let us walk you through the process of creating your first app step-by-step, or just dive in and start building! We'll help you along the way." At the bottom, there are two buttons: "+ New Application" and "+ Import Application".

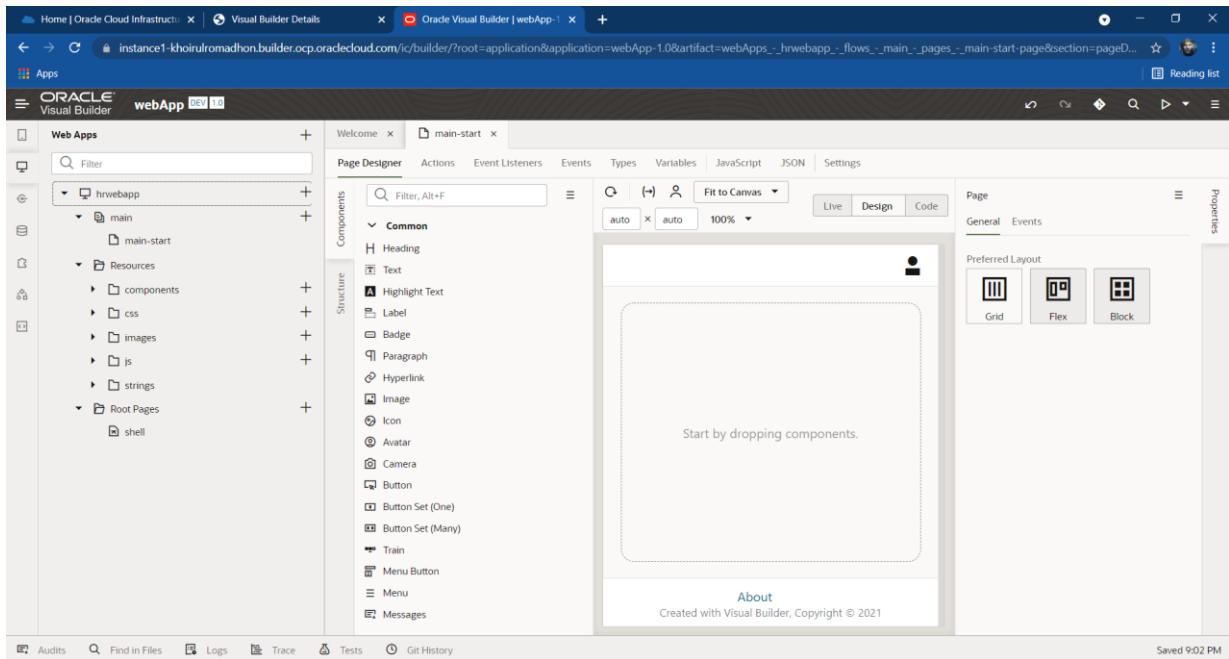
```
! [Praktikum] (img/Praktikum_1.1.jpg)
```



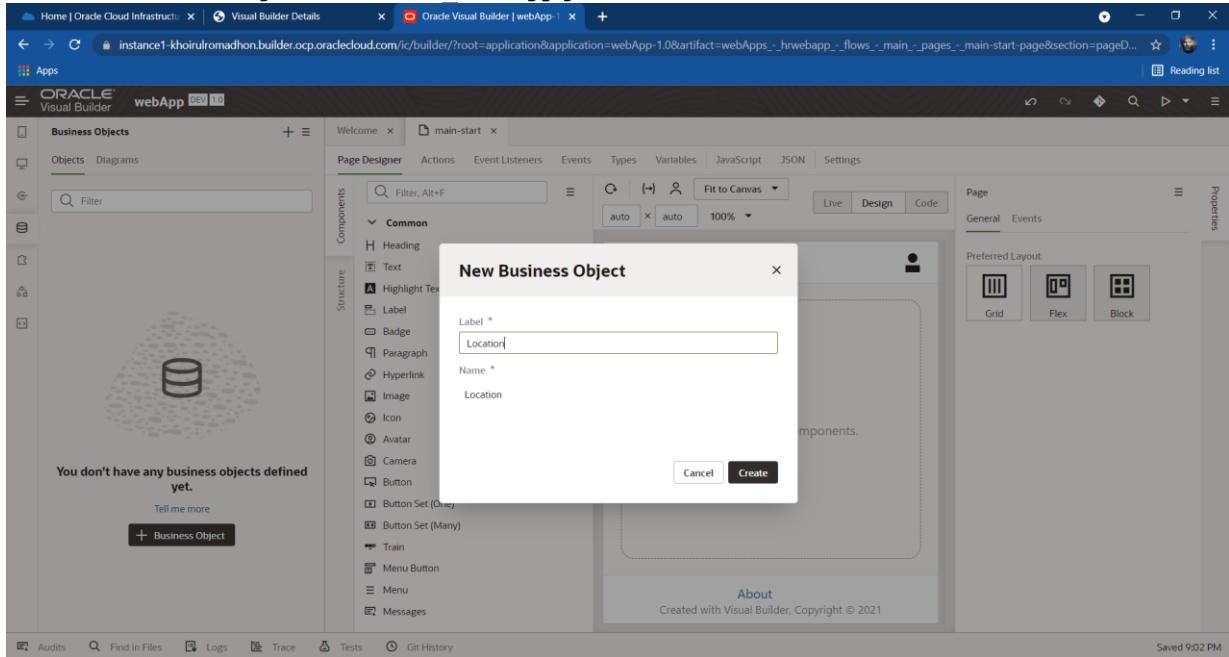
! [Praktikum] (img/Praktikum\_1.3.jpg)

The screenshot shows the Oracle Visual Builder interface with a modal dialog titled 'Create Web Application'. In the 'General Information' section, the application name is 'hrwebapp'. Under 'Navigation Items', there are two options: 'None' and 'Tabbed', with 'None' selected. A message indicates there are no navigation items for the chosen style. On the right side of the screen, there is a 'Learn' sidebar with links to various documentation and help resources.

! [Praktikum] (img/Praktikum\_1.4.jpg)



! [Praktikum] (img/Praktikum\_1.5.jpg)



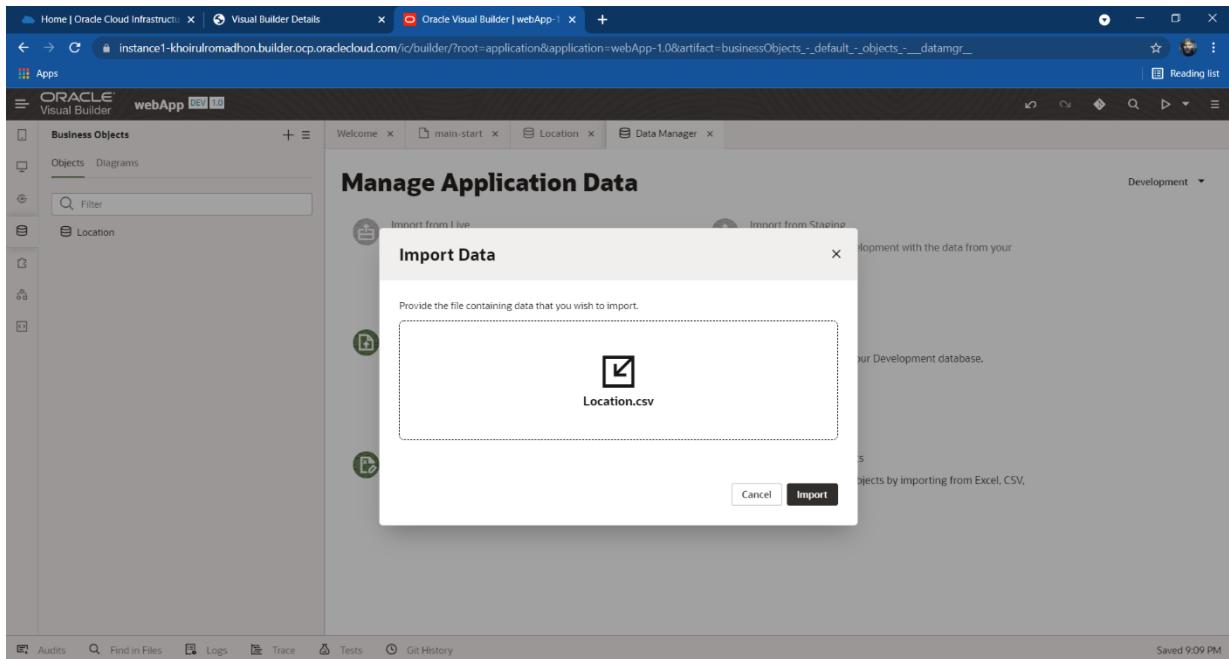
! [Import] (img/Import\_1.1.jpg)

The screenshot shows the Oracle Visual Builder interface for a webApp application. On the left, there's a sidebar with 'Business Objects' selected, showing 'Objects' and 'Diagrams'. The main area has tabs for 'Overview', 'Fields', 'Security', 'Business Rules', 'Endpoints', and 'Data'. The 'Fields' tab is active, displaying a list of fields for a 'Location' object. A modal dialog is open, allowing the creation of a new field. The new field is being named 'name' with a display label of 'Name'. The properties pane on the right shows the field name as 'createdBy' and its display label as 'Created By'. Other properties like type (String), format (None), and constraints (Required, Searchable) are also visible.

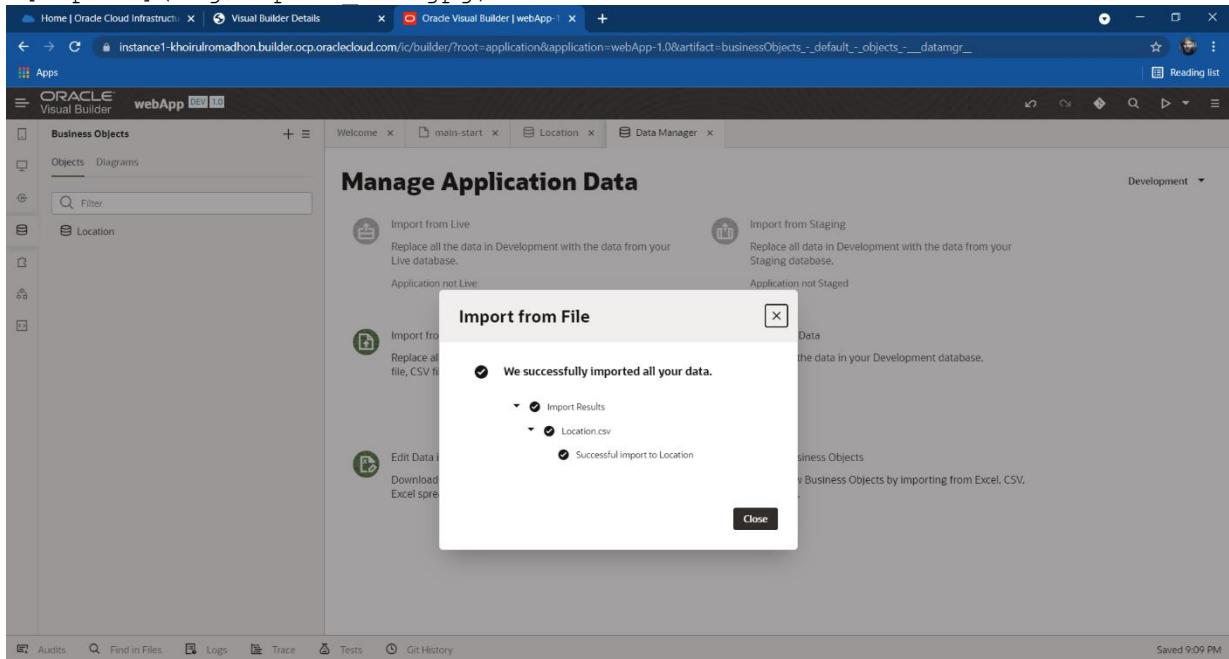
! [Import] (img/Import\_1.2.jpg)

This screenshot shows the same Oracle Visual Builder interface after the field 'name' has been successfully created. The 'Fields' list now includes the 'name' field, which is highlighted in green. Its properties are displayed in the right-hand panel: type is 'String', format is 'None', and it is marked as 'Required' and 'Searchable'. The 'Value Calculation' section indicates 'None' is selected. The 'Constraints' section shows that 'Required' is checked, while 'Unique', 'Indexed', 'Updatable', and 'Searchable' are unchecked.

! [Import] (img/Import\_1.3.jpg)



! [Import] (img/Import\_1.4.jpg)



! [Import] (img/Import\_1.5.jpg)

The screenshot shows the Oracle Visual Builder interface for a webApp named 'webApp REV 1.0'. The left sidebar has 'Business Objects' expanded, with 'Objects' selected. The main area is titled 'Query' and shows a table with four rows of data under the 'Development' connection. The columns are 'Id' and 'Name'. The data is as follows:

| Id | Name    |
|----|---------|
| 1  | Floor 1 |
| 2  | Floor 2 |
| 3  | Floor 3 |
| 4  | Floor 4 |

At the bottom of the table, it says '(1-4 of 4 items)' with page navigation buttons.

![Import] (img/Import\_1.6.jpg)

The screenshot shows the same Oracle Visual Builder interface as the first one, but with a modal dialog titled 'New Business Object' overlaid. The dialog has two fields: 'Label \*' containing 'Departement' and 'Name \*' also containing 'Departement'. At the bottom are 'Cancel' and 'Create' buttons.

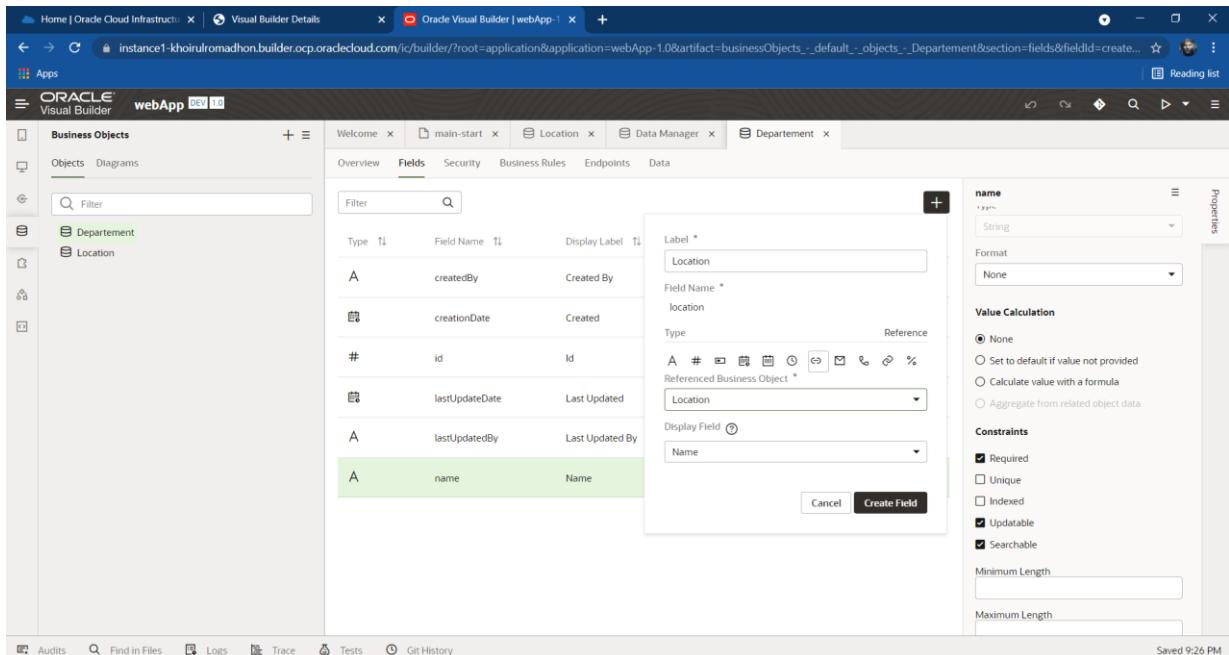
![Departement] (img/Departement\_1.1.jpg)

The screenshot shows the Oracle Visual Builder interface for a webApp. On the left, there's a sidebar with 'Business Objects' and 'Departement' selected. The main area is titled 'Fields' under 'Departement'. A modal window is open, showing the configuration for a new field named 'createdBy'. The modal includes fields for 'Label' (set to 'Name'), 'Field Name' (set to 'createdBy'), 'Display Label' (set to 'Created By'), 'Type' (set to 'String'), and a 'Description' field which is empty. There are also sections for 'Constraints' (with 'Required' checked) and 'Properties' (including 'Format' set to 'None'). At the bottom of the modal is a 'Create Field' button.

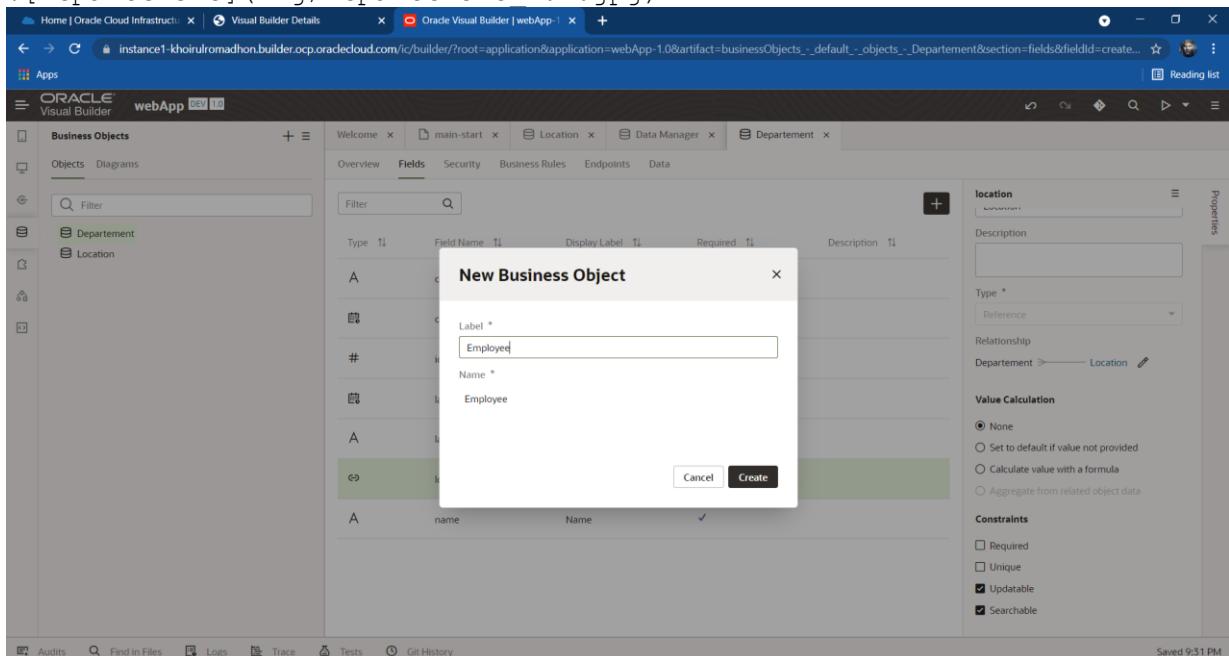
! [Departement] (img/Departement 1.2.jpg)

This screenshot shows the same Oracle Visual Builder interface as the previous one, but the 'name' field is now highlighted in green. The configuration pane on the right shows the 'name' field has been updated to have a 'Display Label' of 'Name' and a 'Type' of 'String'. The 'Format' is set to 'None'. Under 'Value Calculation', 'None' is selected. In the 'Constraints' section, 'Required' is checked, while 'Unique', 'Indexed', and 'Searchable' are unchecked. There are also fields for 'Minimum Length' and 'Maximum Length'.

! [Departement] (img/Departement\_1.3.jpg)



! [Departement] (img/Departement 1.4.jpg)



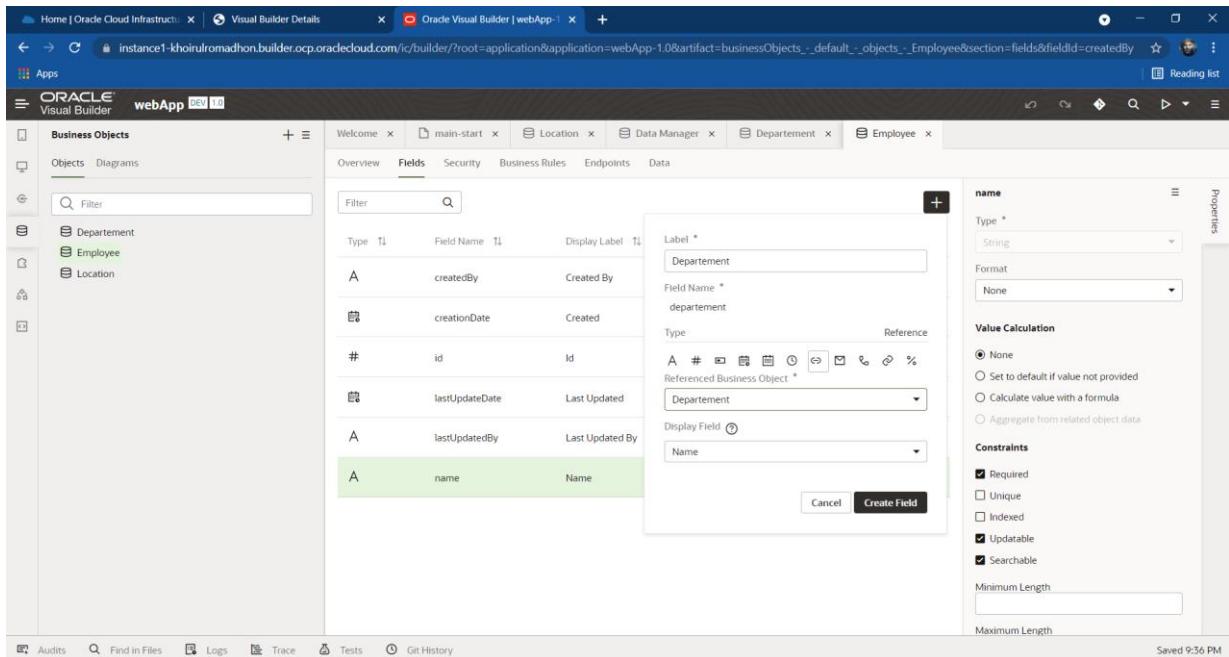
! [Employee] (img/Employee\_1.1.jpg)

The screenshot shows the Oracle Visual Builder interface for a webApp application. On the left, the 'Business Objects' sidebar lists 'Departement', 'Employee', and 'Location'. The main area displays a table of fields for the 'Employee' object. A modal dialog is open, showing the configuration for a new field named 'name'. The 'Label' is set to 'Name', and the 'Field Name' is also 'name'. The 'Type' is 'String'. The 'Display Label' is 'Created By'. The 'Properties' panel on the right shows constraints like 'Required' (unchecked), 'Unique' (unchecked), 'Indexed' (unchecked), 'Updatable' (checked), and 'Searchable' (checked). The status bar at the bottom indicates 'Saved 9:35 PM'.

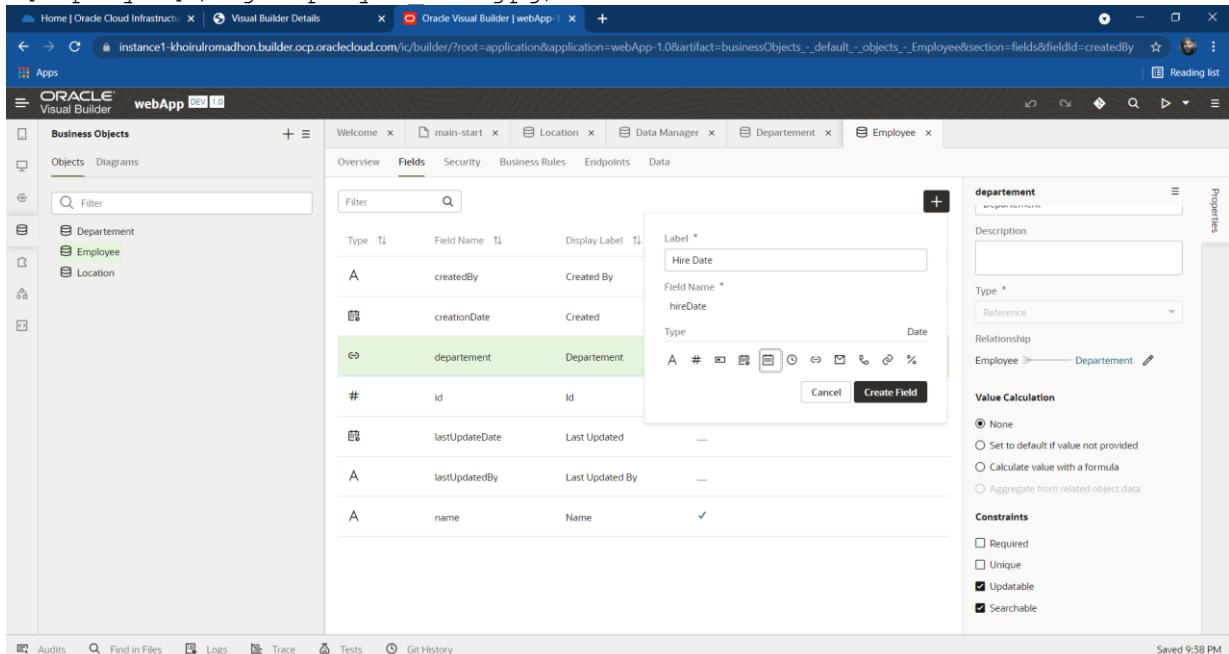
! [Employee] (img/Employee\_1.2.jpg)

This screenshot shows the same Oracle Visual Builder interface as the previous one, but the 'name' field has been selected in the list. The properties panel on the right now shows the configuration for the 'name' field. The 'Label' is 'Name', 'Field Name' is 'name', 'Type' is 'String', and 'Format' is 'None'. Under 'Value Calculation', the 'None' option is selected. The 'Constraints' panel includes checked options for 'Required', 'Unique', 'Updatable', and 'Searchable'. The status bar at the bottom indicates 'Saved 9:36 PM'.

! [Employee] (img/Employee\_1.3.jpg)



! [Employee] (img/Employee\_1.4.jpg)



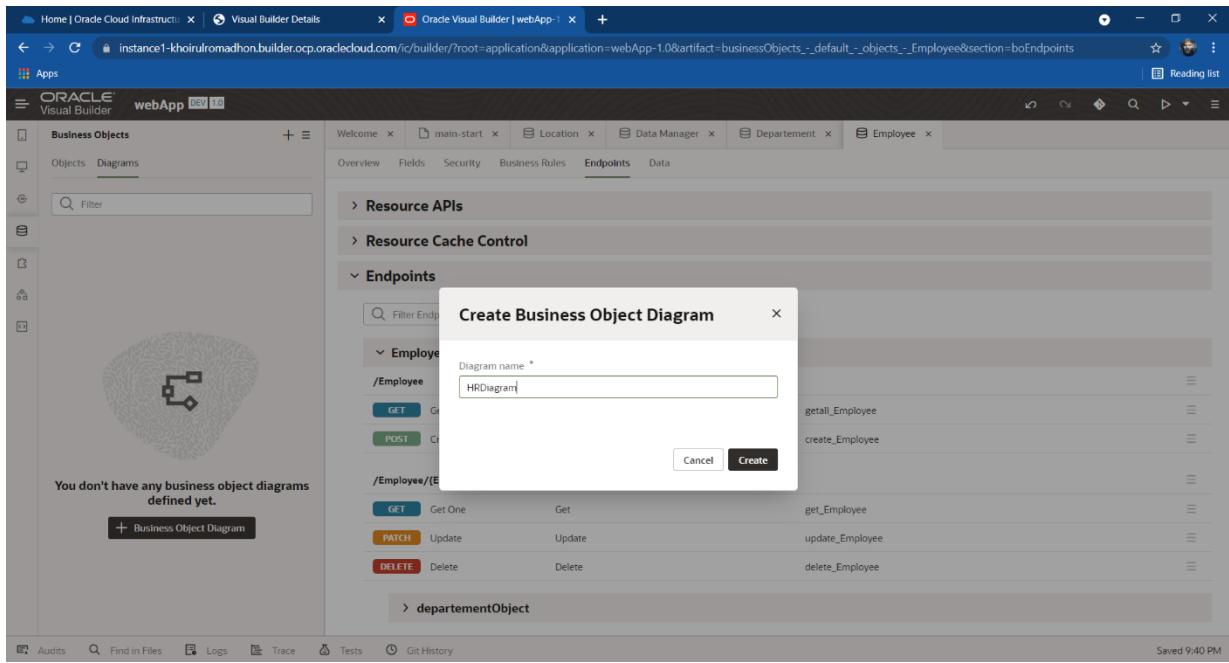
! [Employee] (img/Employee\_1.5.jpg)

The screenshot shows the Oracle Visual Builder interface for creating a new field. The left sidebar lists 'Business Objects' with 'Employee' selected. The main area displays a table of fields for the 'Employee' object. A modal dialog is open for creating a new field named 'hireDate'. The 'Label' field contains 'Email'. The 'Type' dropdown is set to 'Date'. The 'Value Calculation' section has 'None' selected. Under 'Constraints', 'Updatable' and 'Searchable' are checked. The status bar at the bottom right indicates 'Saved 9:39 PM'.

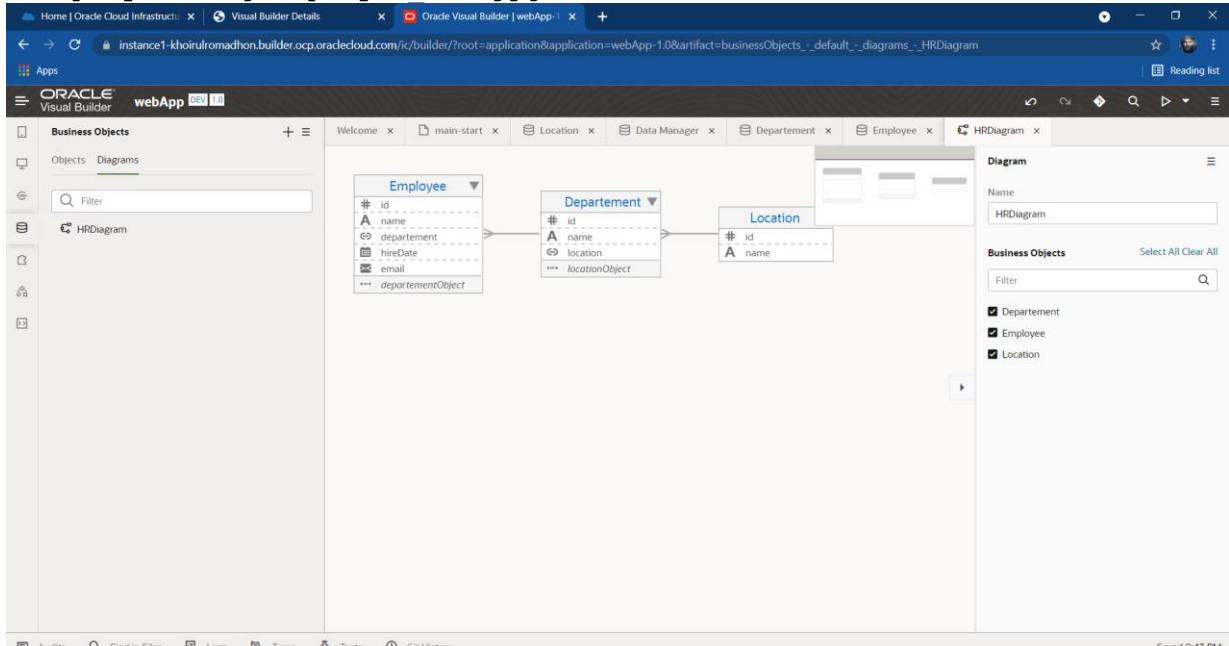
! [Employee] (img/Employee\_1.6.jpg)

The screenshot shows the Oracle Visual Builder interface for configuring endpoints. The left sidebar lists 'Business Objects' with 'Employee' selected. The main area shows the 'Endpoints' tab active. Under the 'Endpoints' section, there is a list of API endpoints for the 'Employee' resource. For the '/Employee' endpoint, there are 'Get Many' (GET) and 'Create' (POST) operations. For the '/Employee/{Employee\_Id}' endpoint, there are 'Get One' (GET), 'Update' (PATCH), and 'Delete' (DELETE) operations. The status bar at the bottom right indicates 'Saved 9:40 PM'.

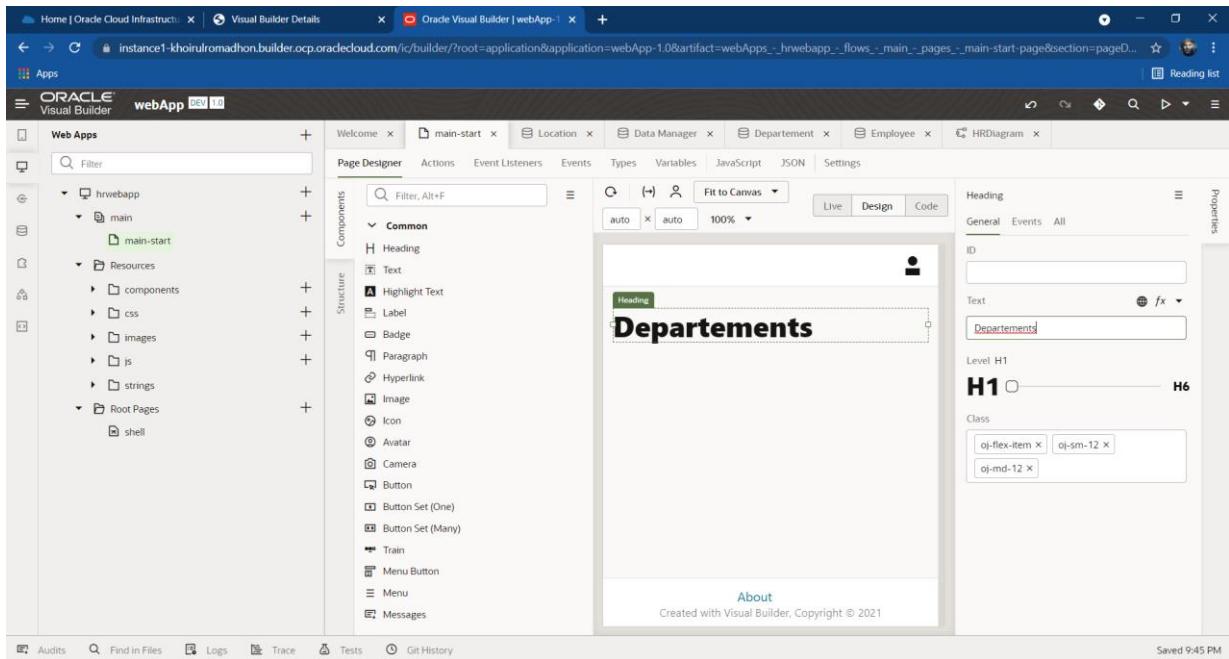
! [Employee] (img/Employee\_1.7.jpg)



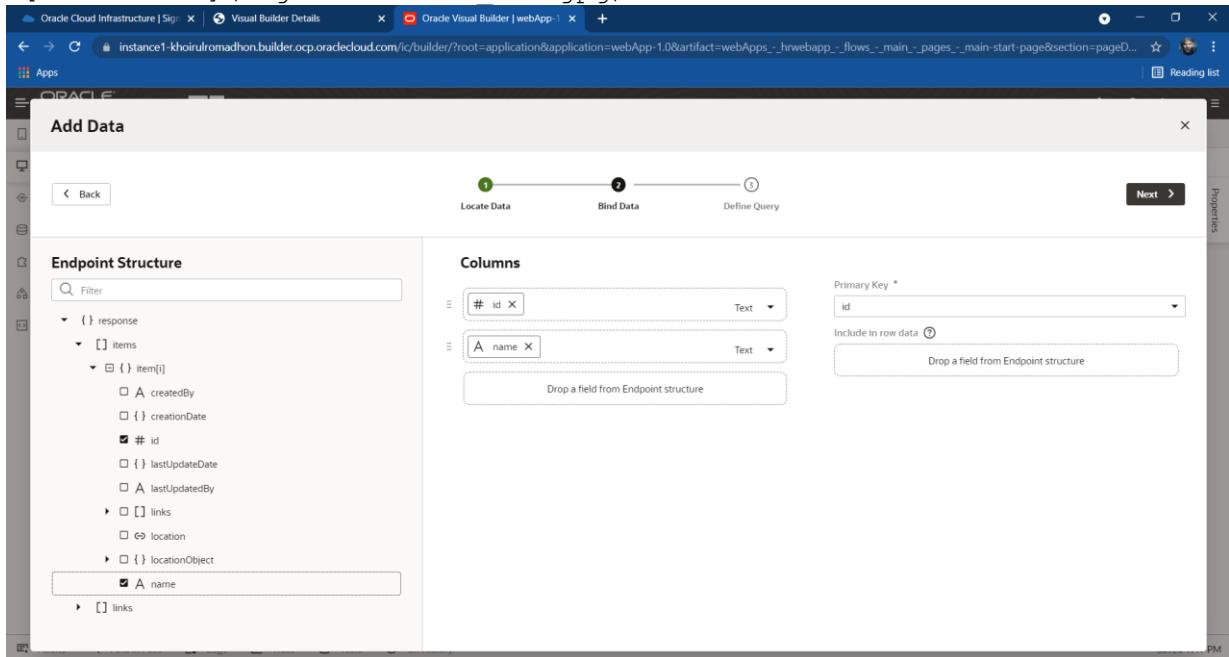
! [Employee] (img/Employee 1.8.jpg)



! [Employee] (img/Employee\_1.9.jpg)



! [main-start] (img/main-start\_1.1.jpg)



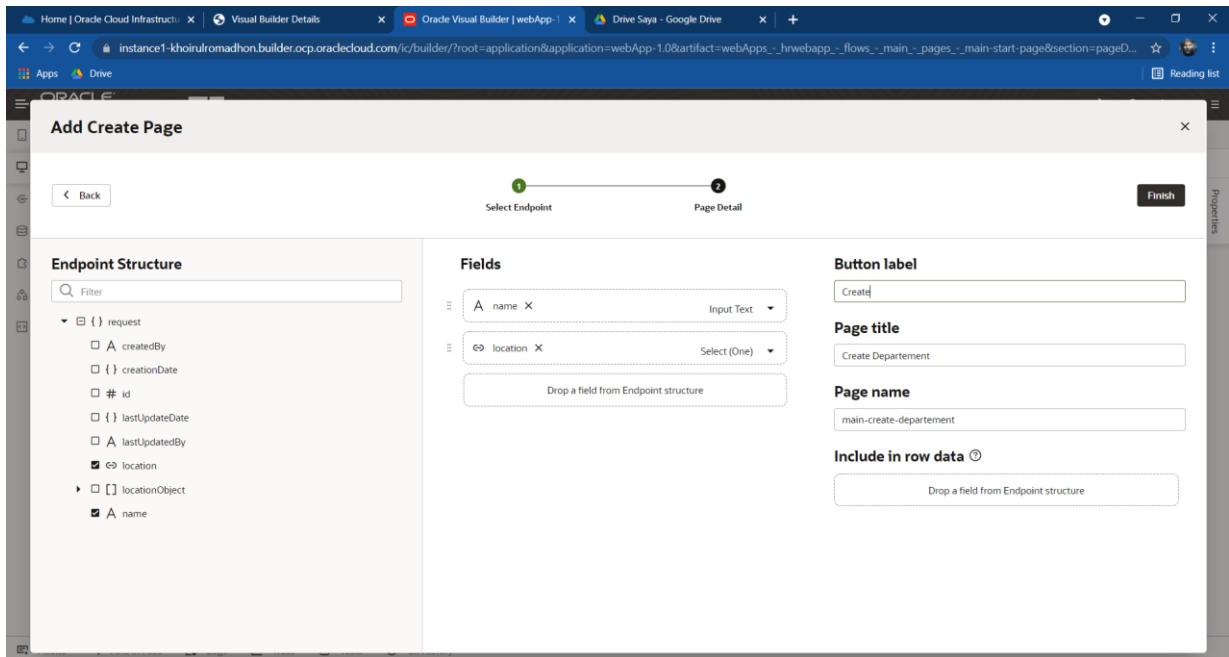
! [main-start] (img/main-start\_1.2.jpg)

The screenshot shows the Oracle Visual Builder interface. On the left, the project structure for 'hrwebapp' includes 'main', 'Resources' (with 'components', 'css', 'images', 'js', 'strings'), 'Root Pages' (with 'main-start'), and 'shell'. The main area displays the 'Departements' page, which has a table with columns 'Id', 'Name', and 'Location'. A message says 'No data to display.' Below the table is an 'About' section stating 'Created with Visual Builder, Copyright © 2021'. The right side shows the 'Properties' panel with sections for 'Table', 'Data', 'Table Columns', 'First Selected Row', 'Selected, Row', and 'Selected, Column'.

! [main-start] (img/main-start 1.3.jpg)

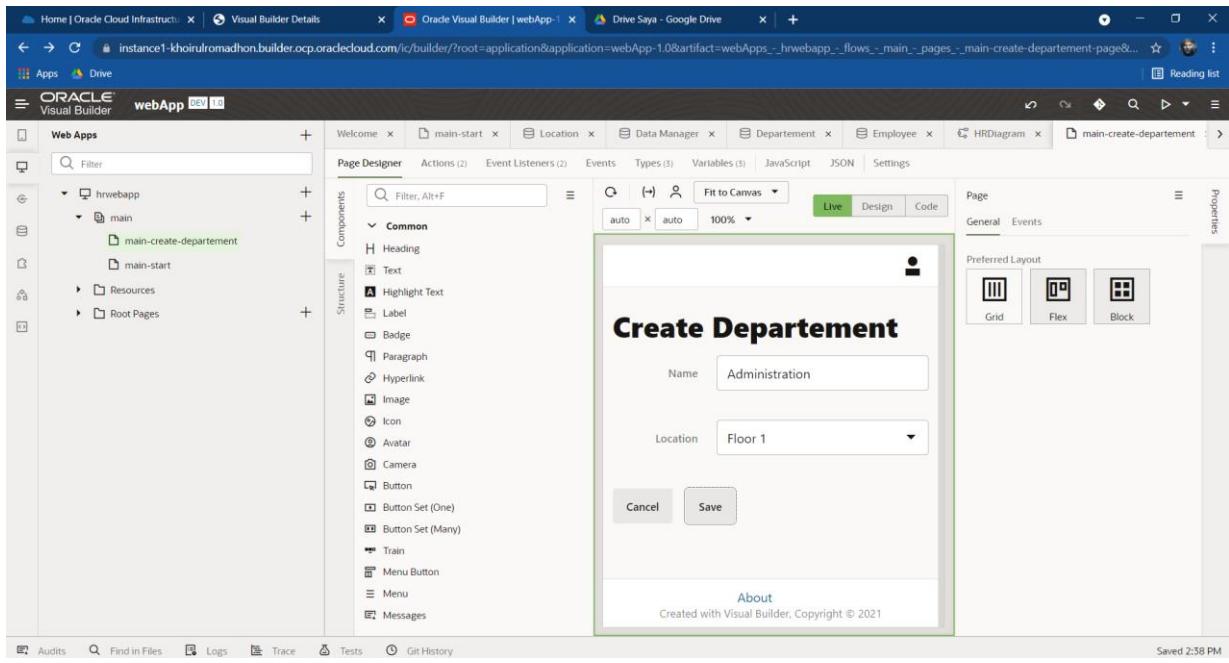
The screenshot shows the 'Add Create Page' dialog. It has a progress bar at the top with step 1 'Select Endpoint' and step 2 'Page Detail'. Below is a search bar and a list of 'Business Objects': 'Departement' (highlighted in green), 'Employee', and 'Location'. A large circular icon with a pencil is in the bottom right corner of the dialog.

! [main-start] (img/main-start\_2.1.jpg)

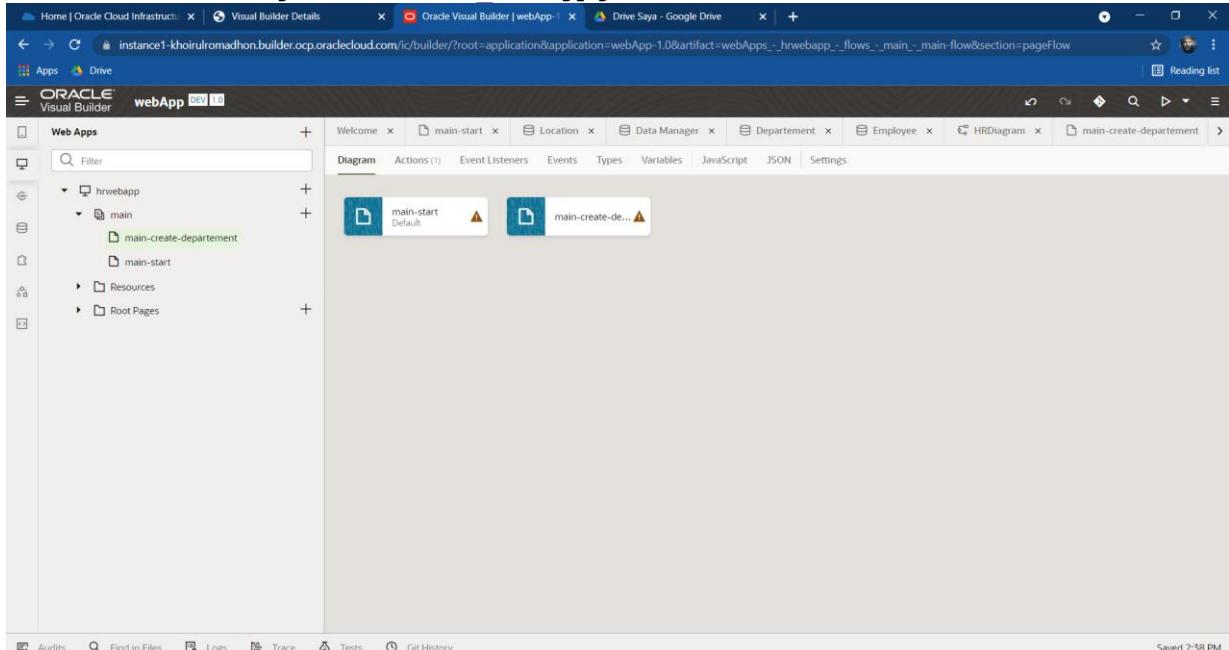


! [main-start] (img/main-start\_2.2.jpg)

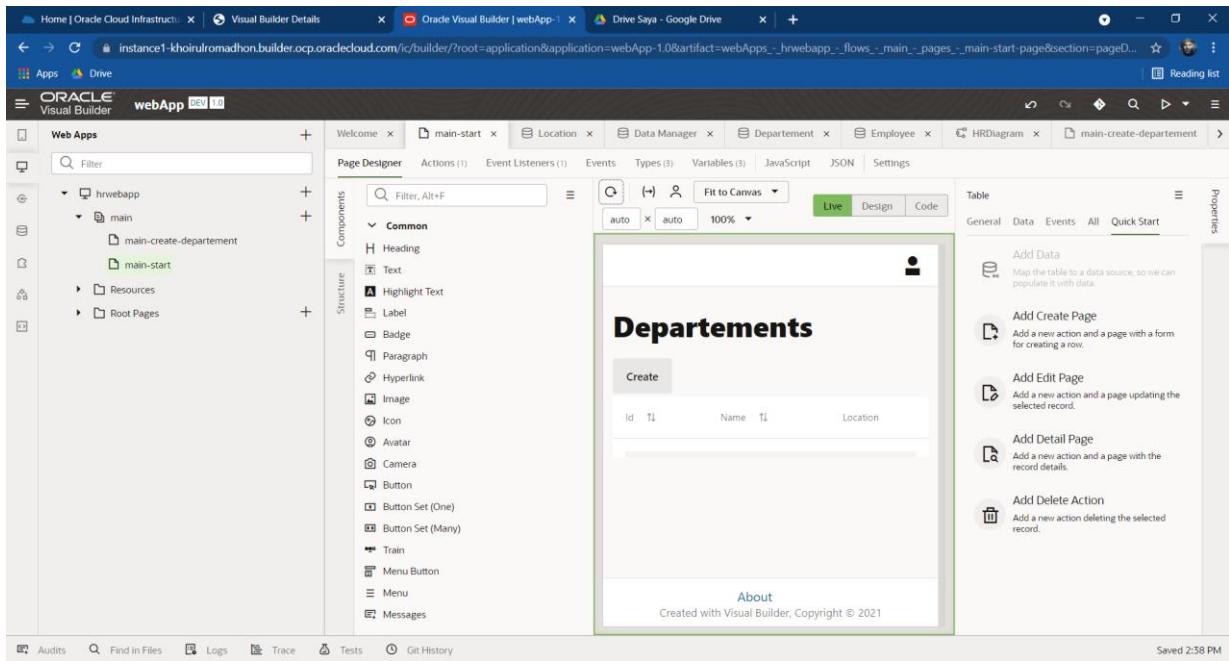
! [main-start] (img/main-start\_2.3.jpg)



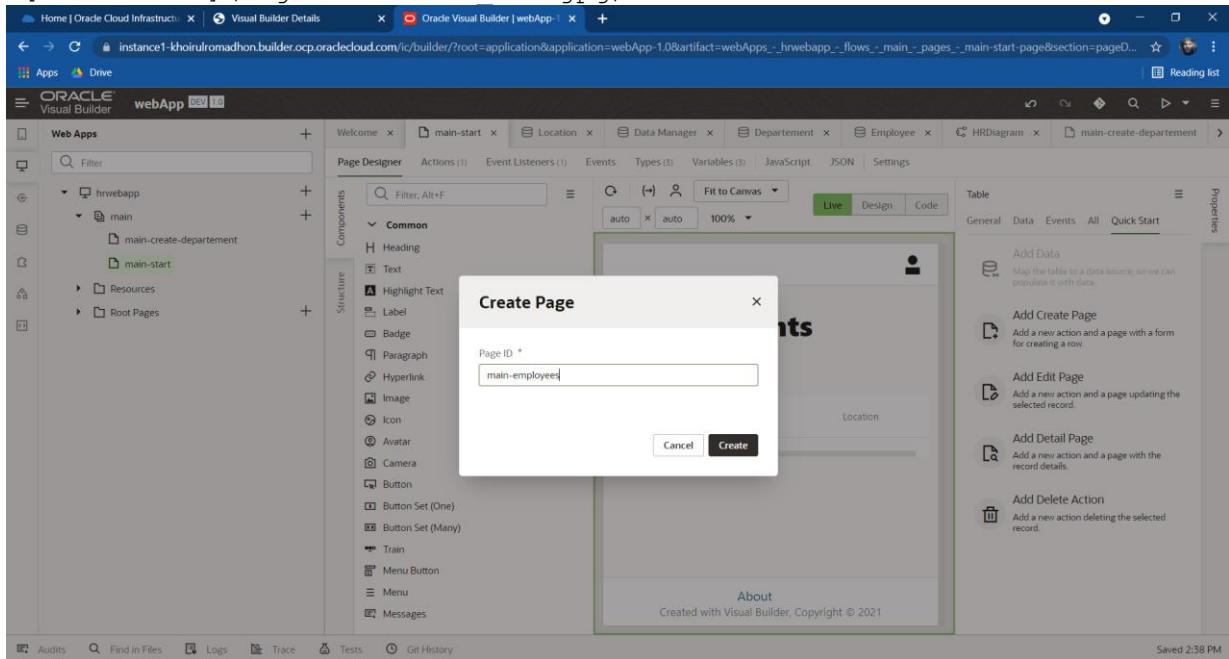
! [main-start] (img/main-start 2.4.jpg)



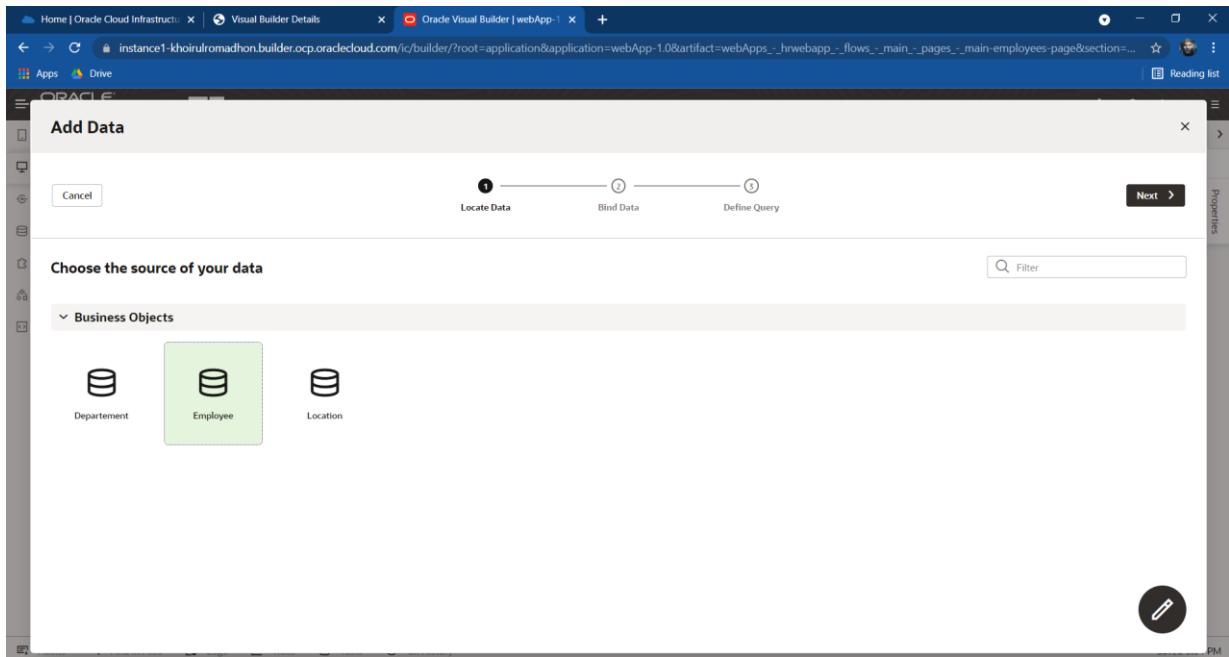
! [main-start] (img/main-start\_2.5.jpg)



! [main-start] (img/main-start 2.6.jpg)



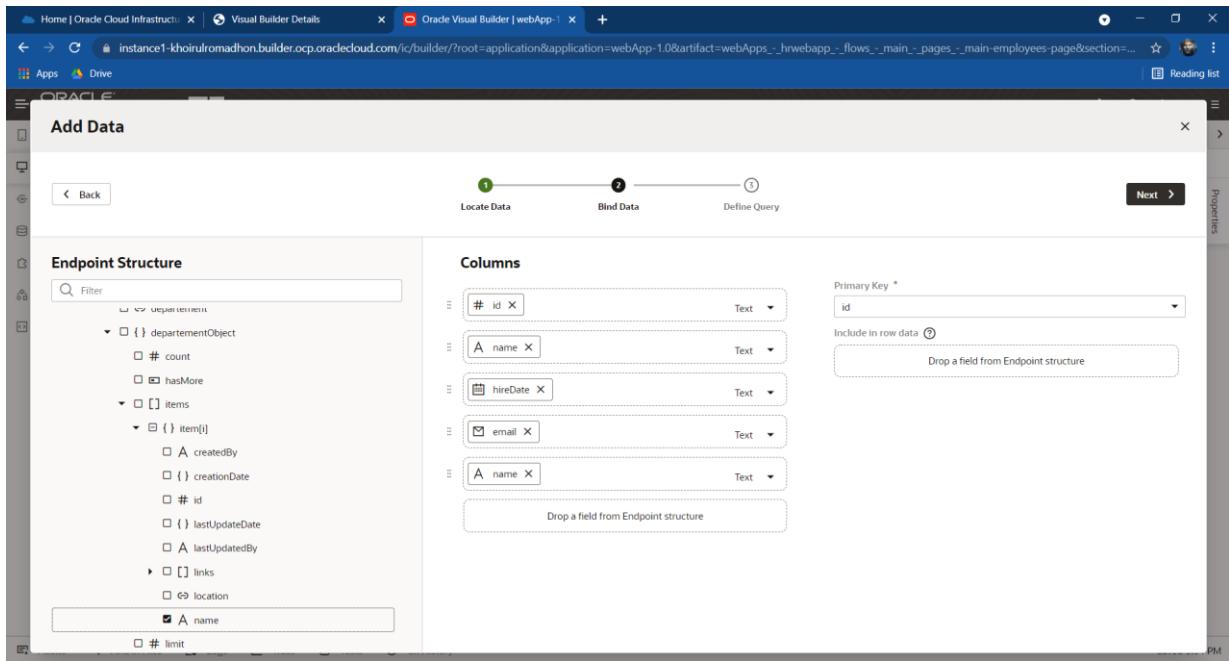
! [main-employees] (img/main-employees\_1.1.jpg)



! [main-employees] (img/main-employees\_1.2.jpg)

The screenshot shows the Oracle Visual Builder interface, similar to the previous one but further along the process. The main title bar and URL are identical. The "Add Data" step is still active. The "Endpoint Structure" section is now expanded, showing a detailed tree view of fields. The "Columns" section lists four columns: "# id", "A name", "hireDate", and "email". The "Primary Key" field is set to "id". A note says "Include in row data" with a link to "Drop a field from Endpoint structure". The "Properties" panel is visible on the right.

! [main-employees] (img/main-employees\_1.3.jpg)



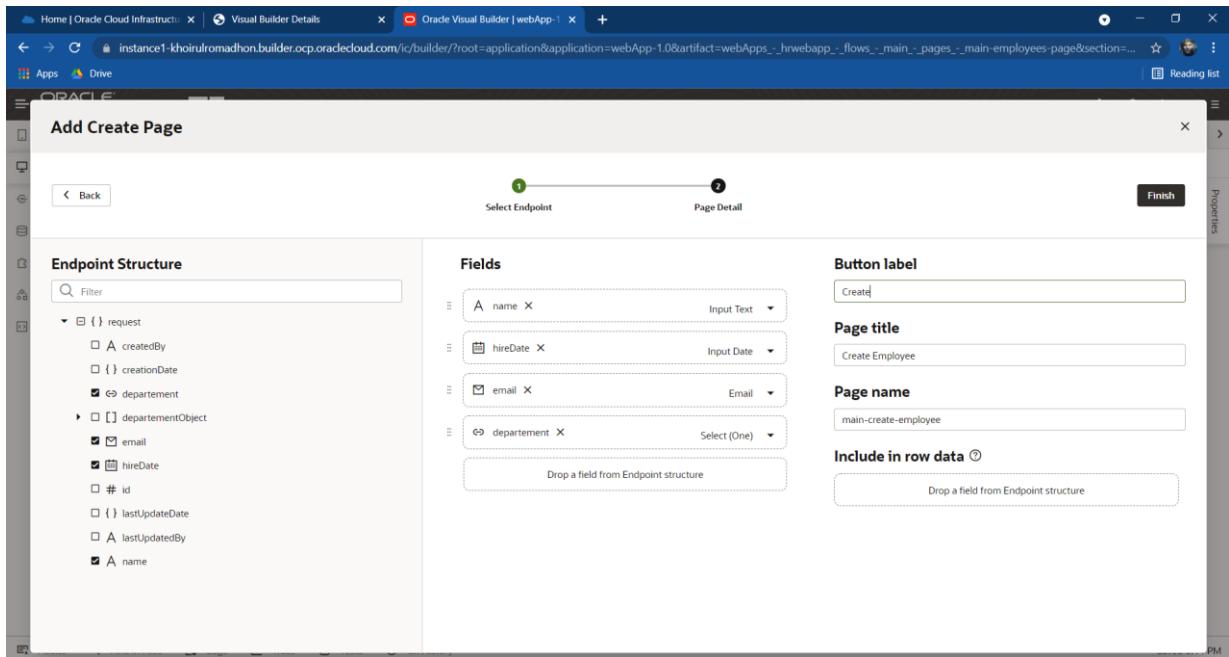
! [main-employees] (img/main-employees\_1.4.jpg)

The screenshot shows the Oracle Visual Builder interface for designing a web application. The left sidebar shows the 'Web Apps' structure with 'main-employees' selected. The main area is the 'Page Designer' for the 'Employees' page. It features a table component with the following columns:

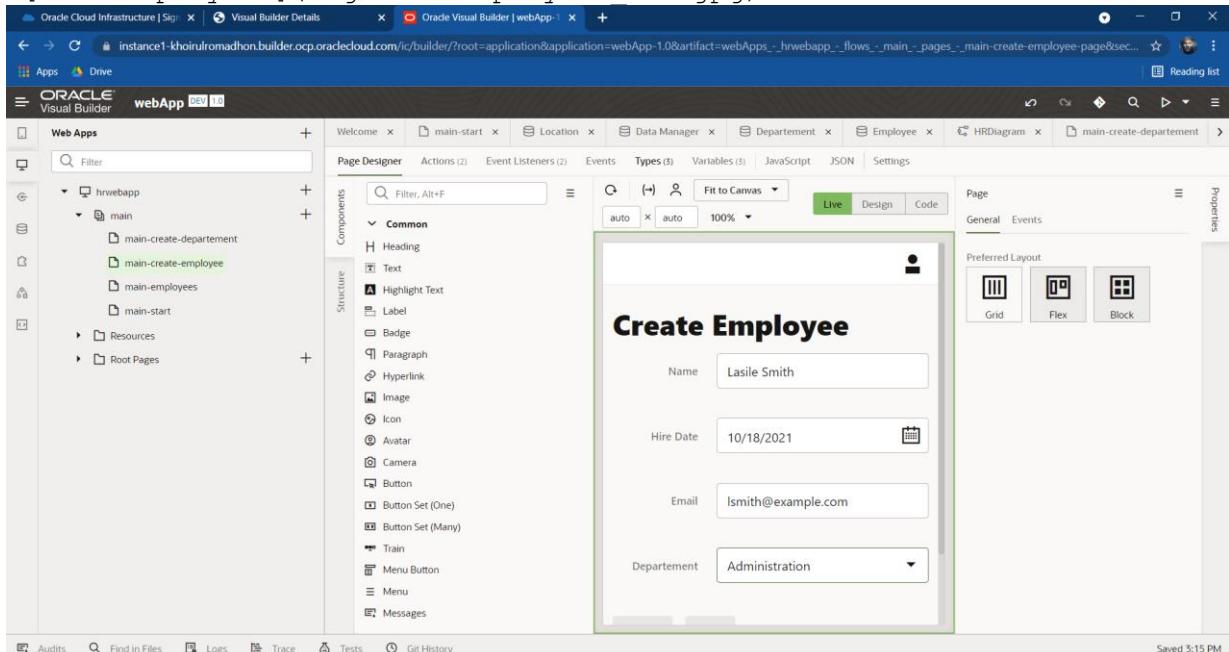
| Id                  | Name | Hire Date | Email | Department |
|---------------------|------|-----------|-------|------------|
| No data to display. |      |           |       |            |

The 'Properties' panel on the right shows settings for the 'Department' column, such as 'Header Text' set to 'Department'.

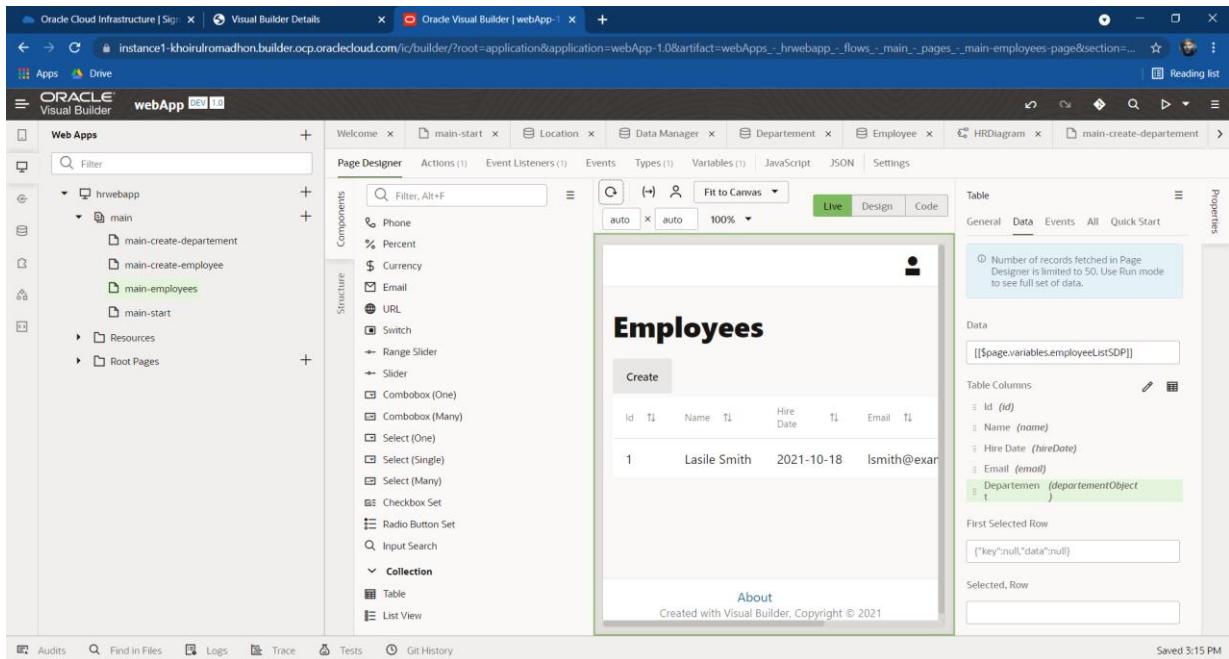
! [main-employees] (img/main-employees\_1.5.jpg)



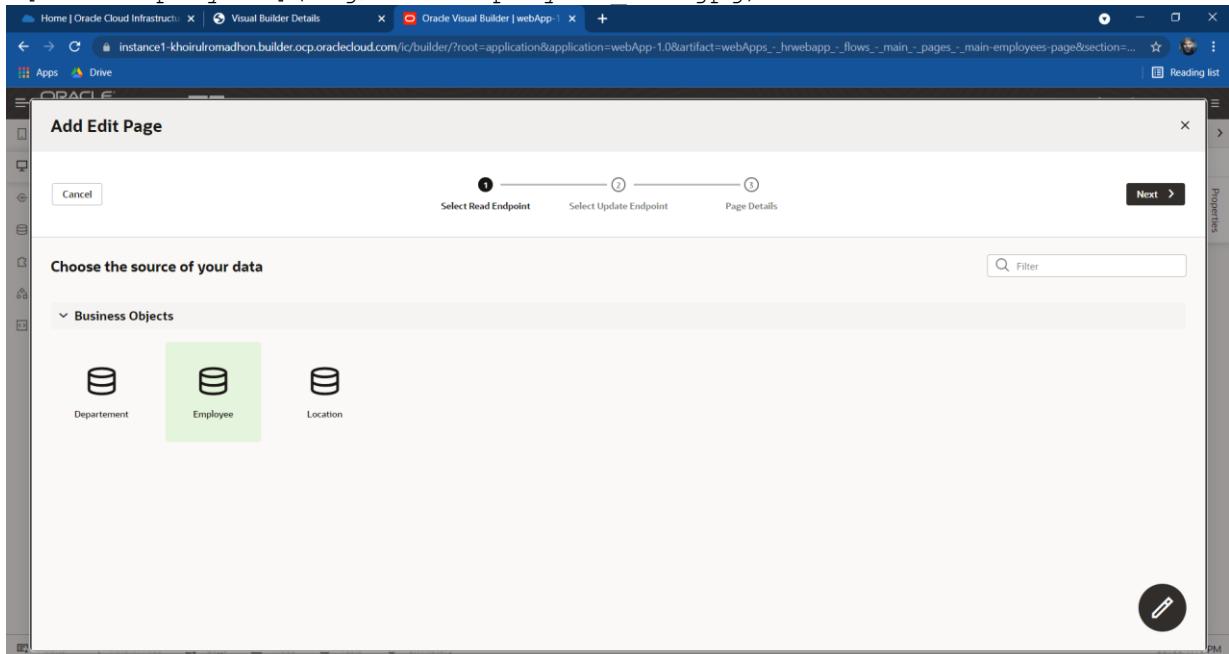
! [main-employees] (img/main-employees\_2.1.jpg)



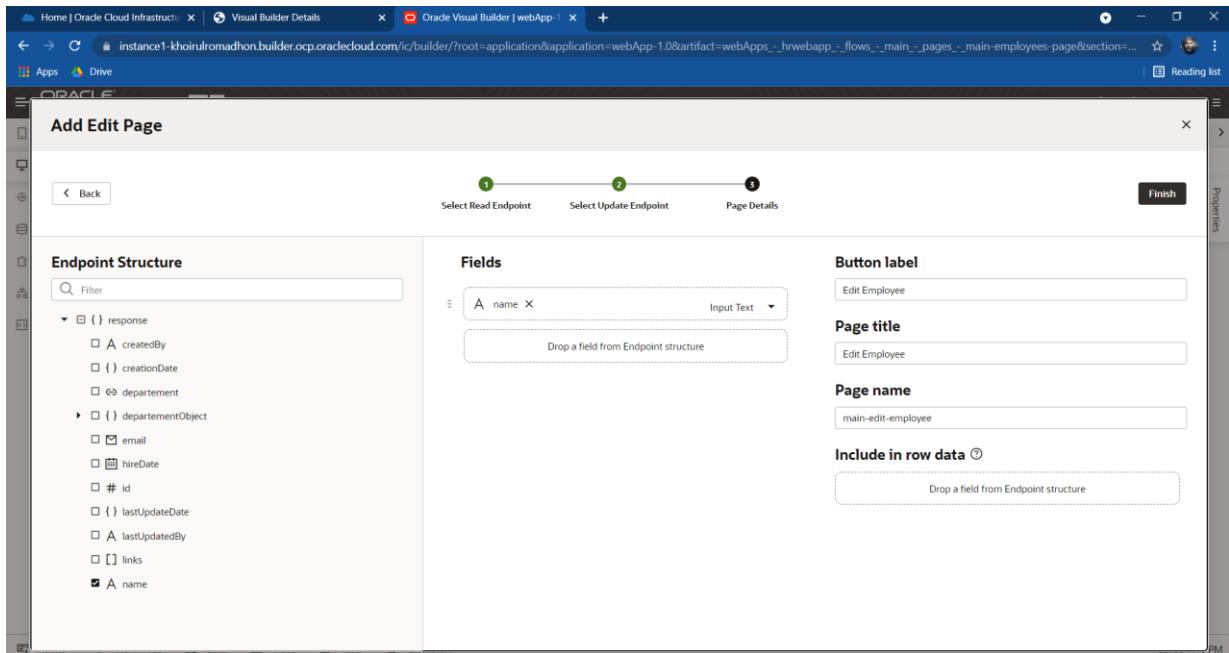
! [main-employees] (img/main-employees\_2.2.jpg)



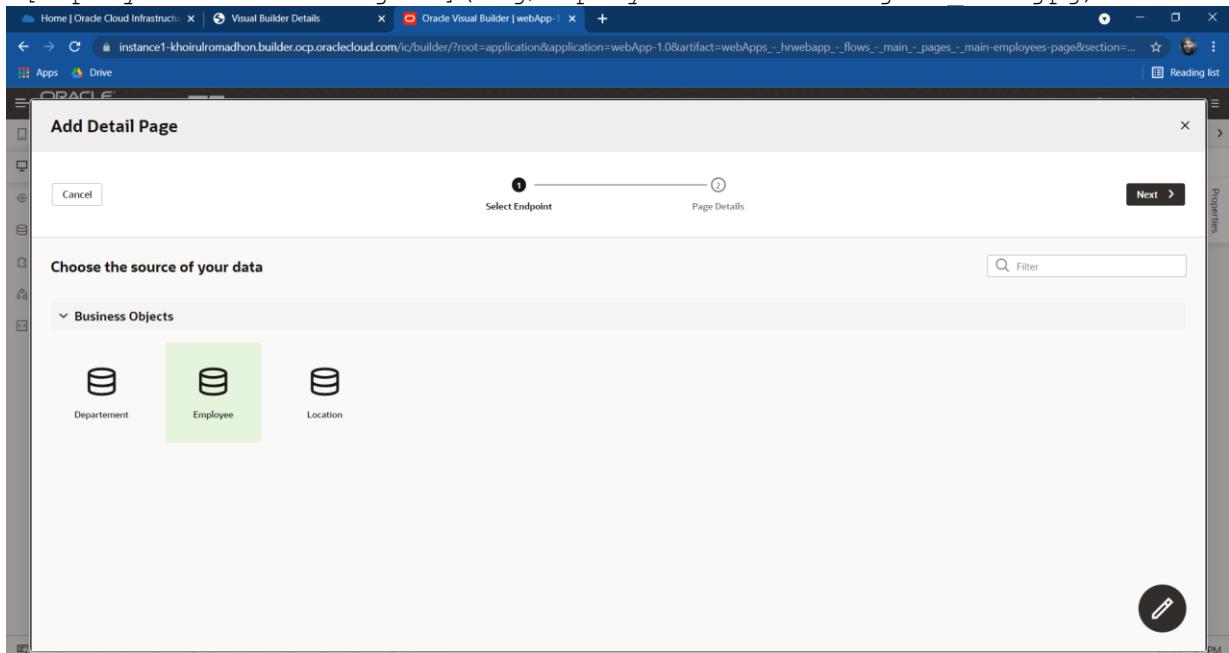
! [main-employees] (img/main-employees 2.3.jpg)



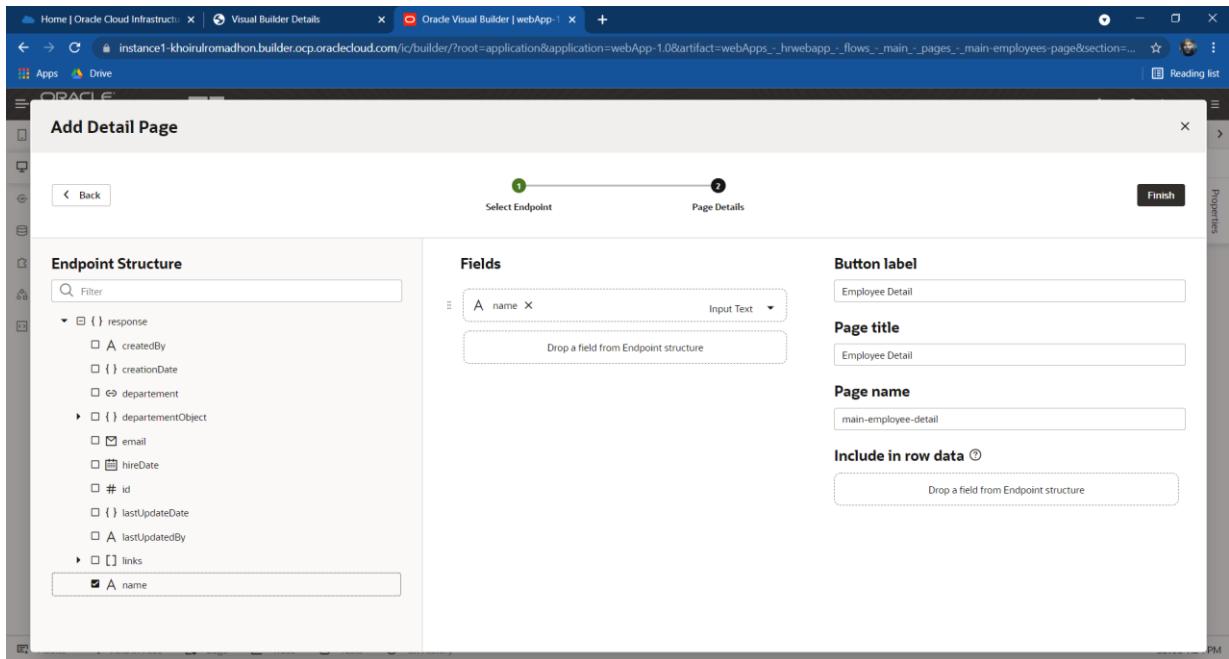
! [employee-business-object] (img/employee-business-object\_1.1.jpg)



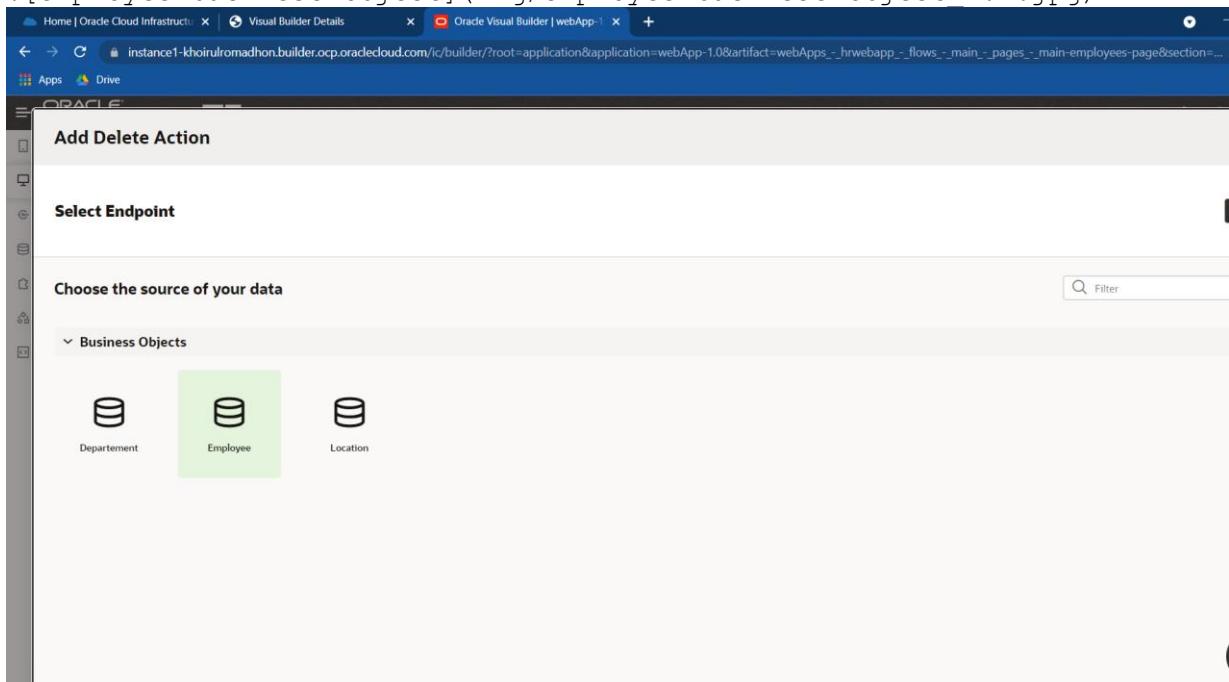
! [employee-business-object] (img/employee-business-object\_1.2.jpg)



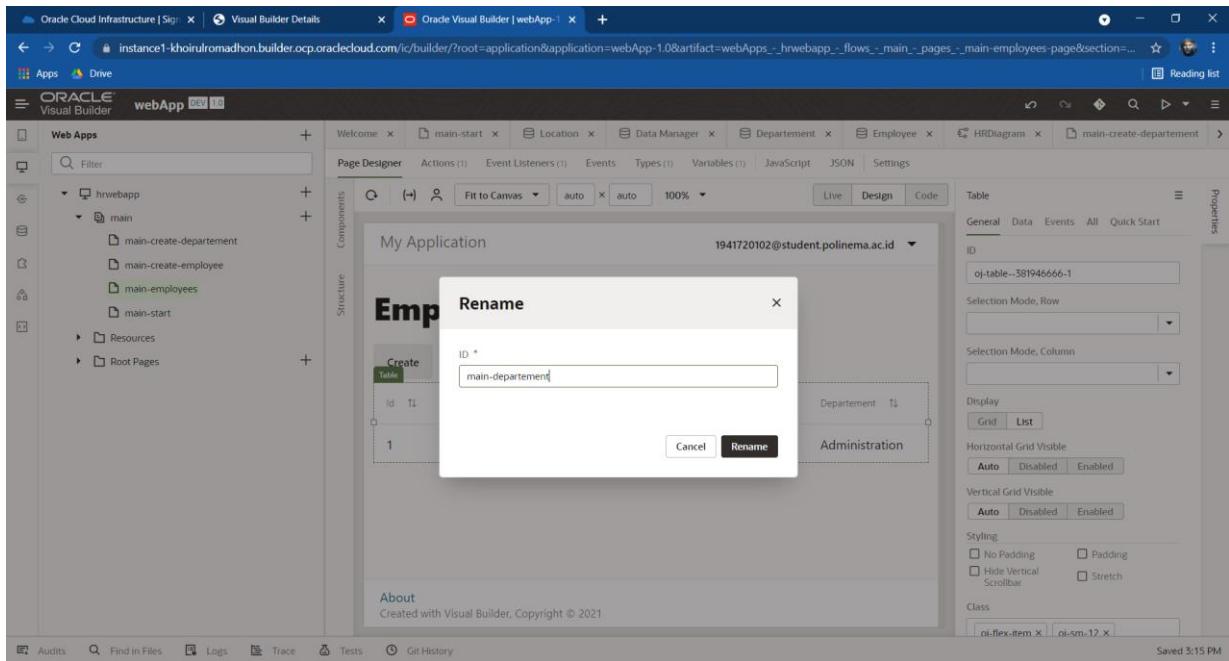
! [employee-business-object] (img/employee-business-object\_1.3.jpg)



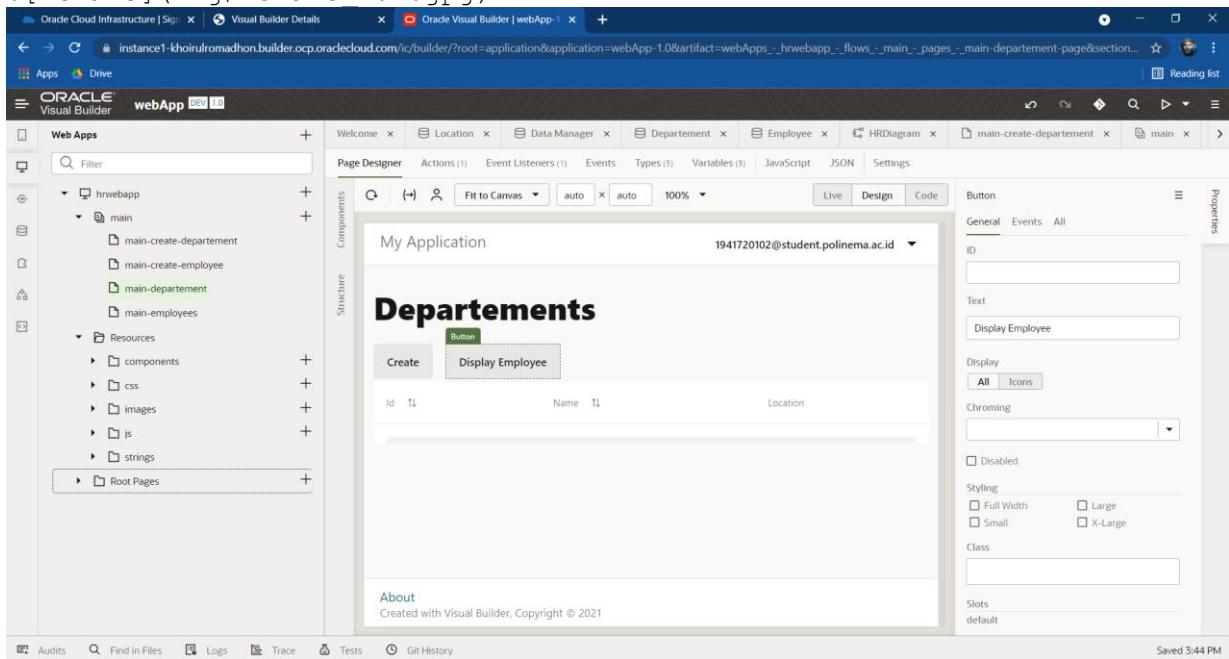
! [employee-business-object] (img/employee-business-object\_1.4.jpg)



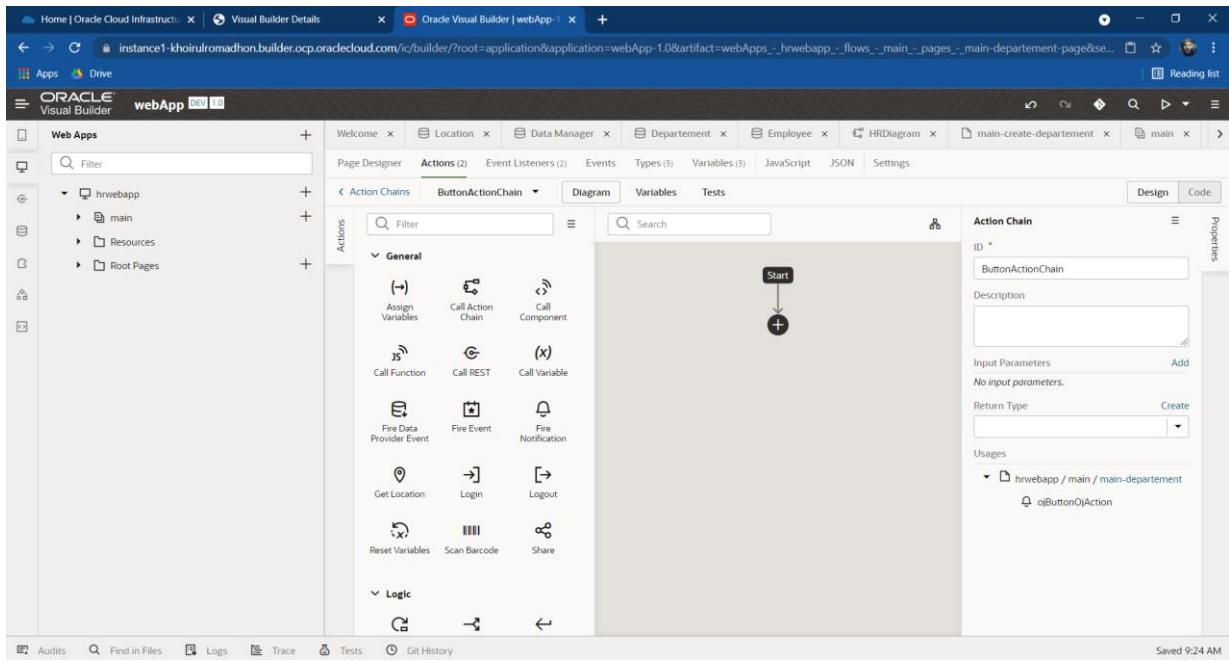
! [employee-business-object] (img/employee-business-object\_1.5.jpg)



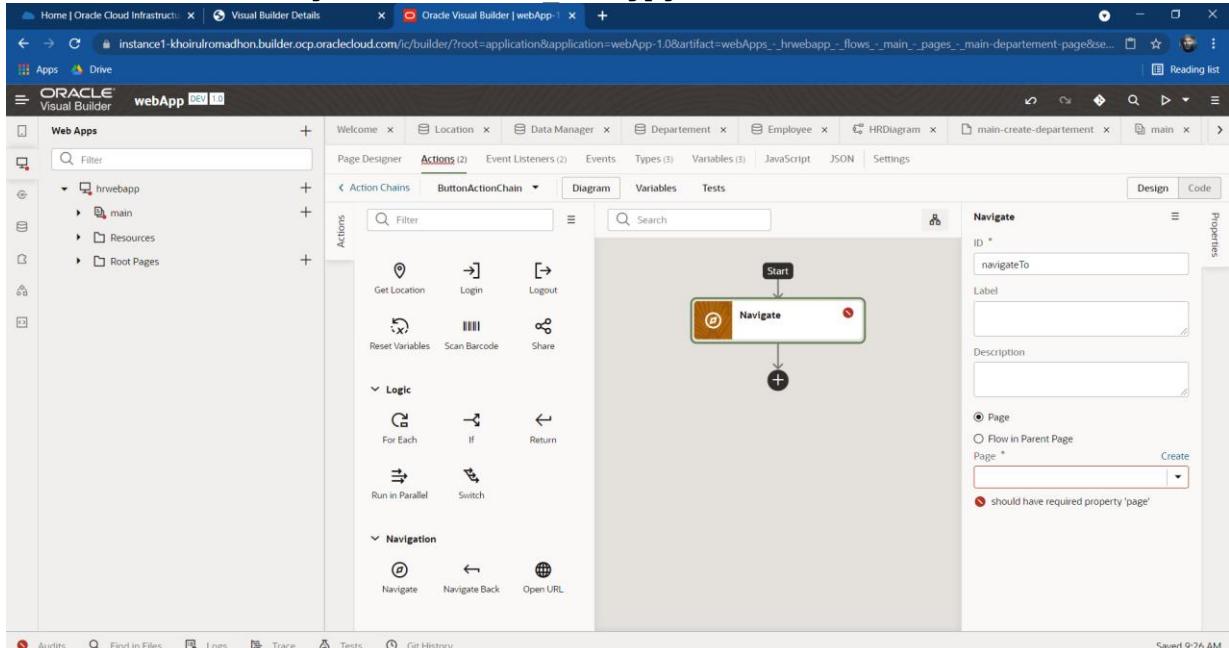
! [Rename] (img/Rename 1.1.jpg)



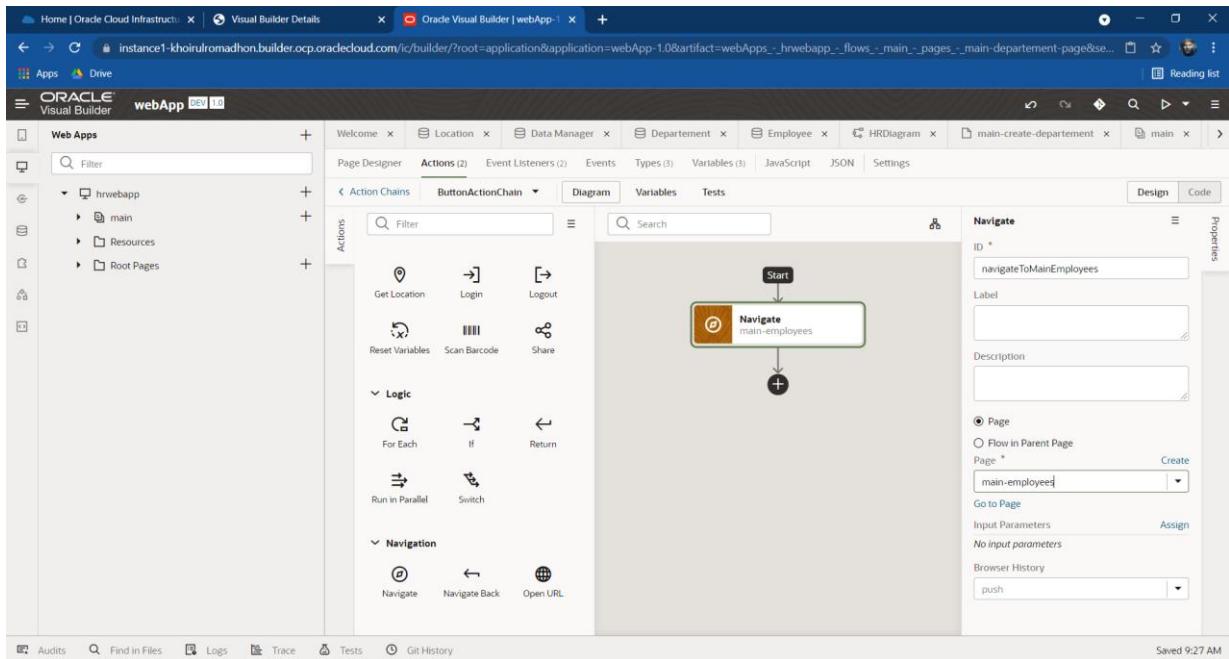
! [action-chain] (img/action-chain\_1.1.jpg)



! [action-chain] (img/action-chain\_1.2.jpg)



! [action-chain] (img/action-chain\_1.3.jpg)



The screenshot shows the preview of the 'Employees' page. The page title is 'My Application'. The main content area displays a table with the following data:

|   | Name         | Hire Date  | Email              | Departement    |
|---|--------------|------------|--------------------|----------------|
| 1 | Lasile Smith | 2021-10-18 | lsmith@example.com | Administration |

At the bottom of the page, there is an 'About' section with the text 'Created with Visual Builder, Copyright © 2021'.

! [action-chain] (img/action-chain\_1.5.jpg)

The screenshot shows the Oracle Visual Builder interface for a web application named 'hrwebapp'. The left sidebar lists pages: 'main-create-departement', 'main-create-employee', 'main-departement', and 'main-employees'. The main area displays a table with one row of data: Id (1), Name (Lasile Smith), Hire Date (2021-10-18), Email (lsmith@example.com), and Departement (Administration). Below the table is an 'About' section with the text 'Created with Visual Builder, Copyright © 2021'. The properties panel on the right is set for a 'Button' component, showing options like 'Display Department' and 'All Icons'.

![action-chain] (img/action-chain\_2.1.jpg)

The screenshot shows the Oracle Visual Builder interface with the 'Actions' tab selected in the 'Action Chains' editor. The left sidebar shows the same page structure as the previous screenshot. The main area displays a diagram of an action chain. It starts with a 'Start' node, followed by a 'Navigate' node labeled 'main-departement'. The properties panel on the right is configured for this 'Navigate' action, with the 'ID' set to 'navigateToMainDepartement' and the 'Page' dropdown set to 'main-departement'. Other settings include 'Create' and 'push' under 'Browser History'.

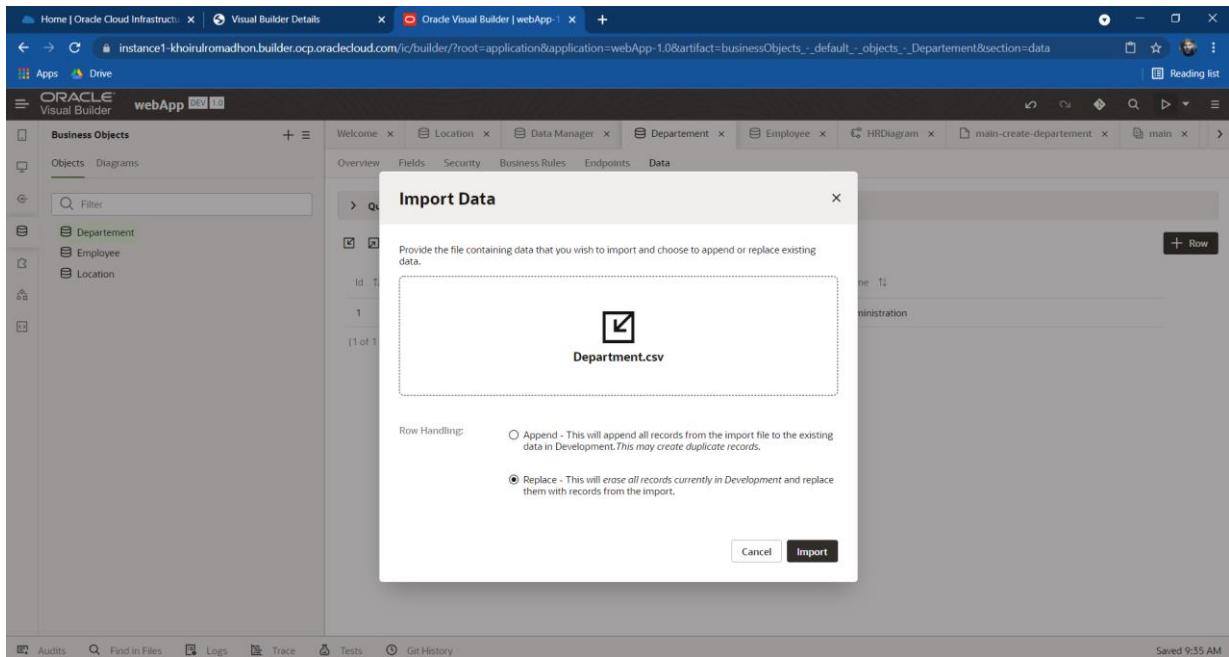
![action-chain] (img/action-chain\_2.2.jpg)

The screenshot shows a web browser window with the URL <https://instance1-khoirulromadon.builder.ocp.oraclecloud.com/ic/builder/design/webApp/1.0/preview/webApps/hnwebapp/>. The page title is "My Application". The main content area displays a table with columns "Id", "Name", and "Location". A single row is visible with values 1, Administration, and Floor 1(1). At the top left, there are buttons for "Create" and "Display Employee". The bottom left corner contains an "About" link and a copyright notice: "Created with Visual Builder, Copyright © 2021".

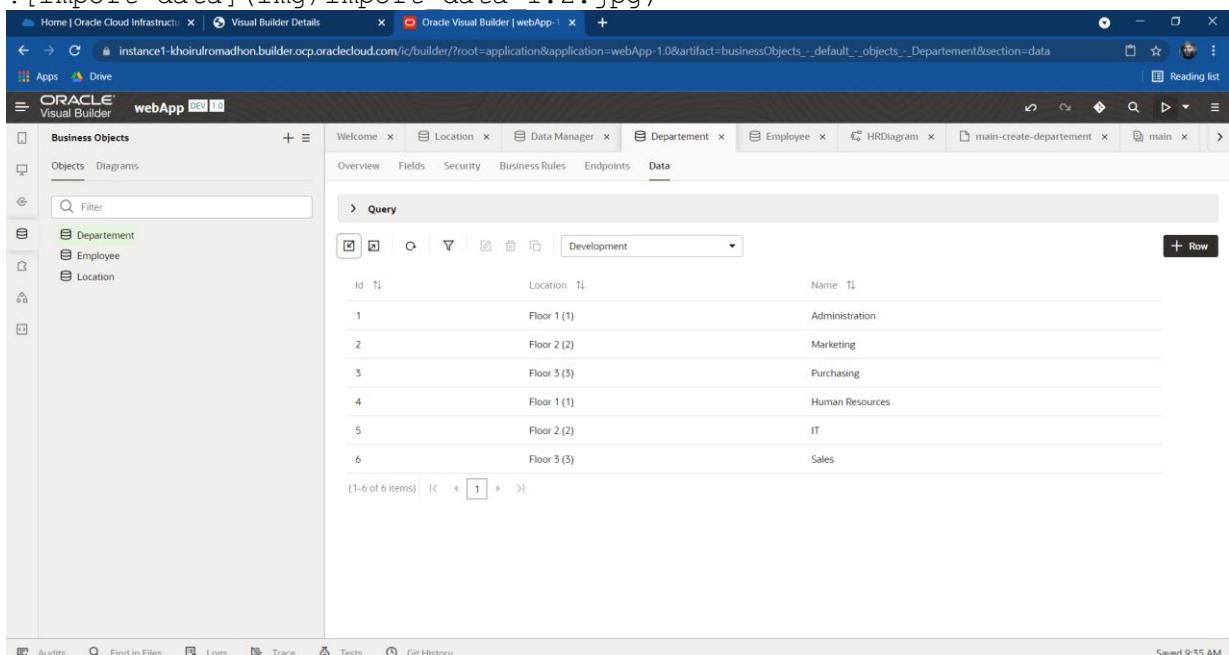
! [action-chain] (img/action-chain\_2.3.jpg)

The screenshot shows a web browser window with the URL <https://instance1-khoirulromadon.builder.ocp.oraclecloud.com/ic/builder/?root=application&application=webApp-1.0&artifact=businessObjects - default - objects - Departement&section=data>. The page title is "ORACLE Visual Builder webApp REV 1.0". The left sidebar shows "Business Objects" with categories "Departement", "Employee", and "Location". The main content area shows a "Query" results table with columns "Id", "Location", and "Name". One row is displayed with values 1, Floor 1(1), and Administration. The bottom right corner shows a timestamp: "Saved 9:35 AM".

! [import-data] (img/import\_data\_1.1.jpg)



![import-data](img/import\_data\_1.2.jpg)



![import-data](img/import\_data\_1.3.jpg)

The screenshot shows the Oracle Visual Builder interface. On the left, there's a sidebar with 'Business Objects' expanded, showing 'Departement', 'Employee', and 'Location'. The main area has tabs for 'Overview', 'Fields', 'Security', 'Business Rules', 'Endpoints', and 'Data'. The 'Data' tab is selected, and a sub-tab 'Query' is open. A dropdown menu shows 'Development' is selected. The results table has columns: 'Departement' (Type L), 'Email' (Type L), 'Hire Date' (Type L), 'Id' (Type L), and 'Name' (Type L). One row is shown: 'Administration (1)' with 'lsmith@example.com', 'Oct 18, 2021', '1', and 'Lasale Smith'. At the bottom, it says '(1 of 1 items)' and has navigation arrows.

![import-data] (img/import\_data\_2.1.jpg)

The screenshot shows the Oracle Visual Builder interface with the 'Import Data' dialog box in the foreground. The dialog box has a title 'Import Data' and a sub-instruction 'Provide the file containing data that you wish to import and choose to append or replace existing data.' It features a large dashed rectangular area with a 'Upload a zip file or drag one here' placeholder and a small icon of a document with a checkmark. Below this is a 'Row Handling:' section with two radio button options: 'Append - This will append all records from the import file to the existing data in Development. This may create duplicate records.' and 'Replace - This will erase all records currently in Development and replace them with records from the import.' At the bottom right of the dialog are 'Cancel' and 'Import' buttons. In the background, the main interface shows the same 'Development' department data as the previous screenshot.

![import-data] (img/import\_data\_2.2.jpg)

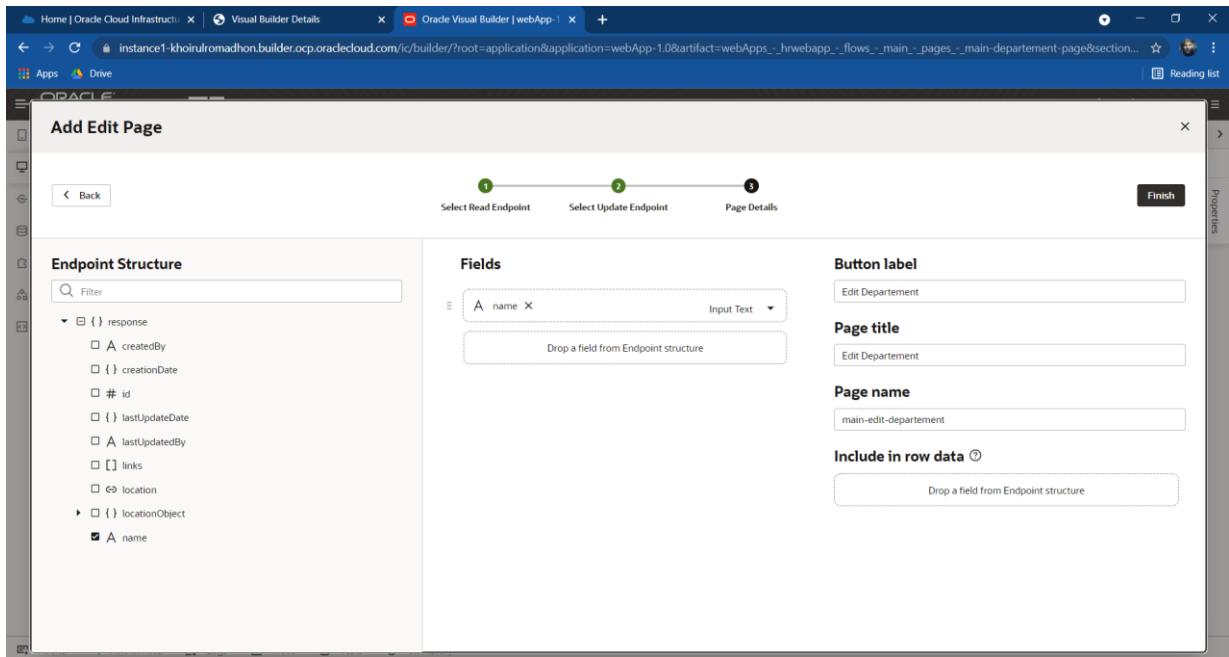
The screenshot shows the Oracle Visual Builder interface. In the top navigation bar, there are tabs for Home | Oracle Cloud Infrastructure, Visual Builder Details, and Oracle Visual Builder | webApp. Below the navigation bar is a toolbar with icons for Apps and Drive. The main workspace has a title bar ORACLE Visual Builder webApp [89/10]. On the left, a sidebar titled Business Objects lists Departments, Employee, and Location. The main area is titled Query and displays a table of data from a Development endpoint. The table has columns: Département, Email, Hire Date, Id, and Name. The data includes 9 items, with the first few rows being:

| Département | Email                 | Hire Date    | Id | Name            |
|-------------|-----------------------|--------------|----|-----------------|
|             | edavis@example.com    | Jun 17, 2006 | 1  | Elizabeth Davis |
|             | jmillier@example.com  | Sep 21, 2008 | 2  | James Miller    |
|             | jgarcia@example.com   | Jan 13, 2004 | 3  | Jennifer Garcia |
|             | mwilliams@example.com | Jan 3, 2009  | 4  | Mark Williams   |
|             | sbrown@example.com    | May 21, 2010 | 5  | Sarah Brown     |
|             | dsmith@example.com    | Jun 25, 2008 | 6  | David Smith     |
|             | kjohnson@example.com  | Feb 5, 2009  | 7  | Karen Johnson   |
|             | rwilson@example.com   | Feb 7, 2010  | 8  | Richard Wilson  |
|             | ljones@example.com    | Aug 17, 2005 | 9  | Linda Jones     |

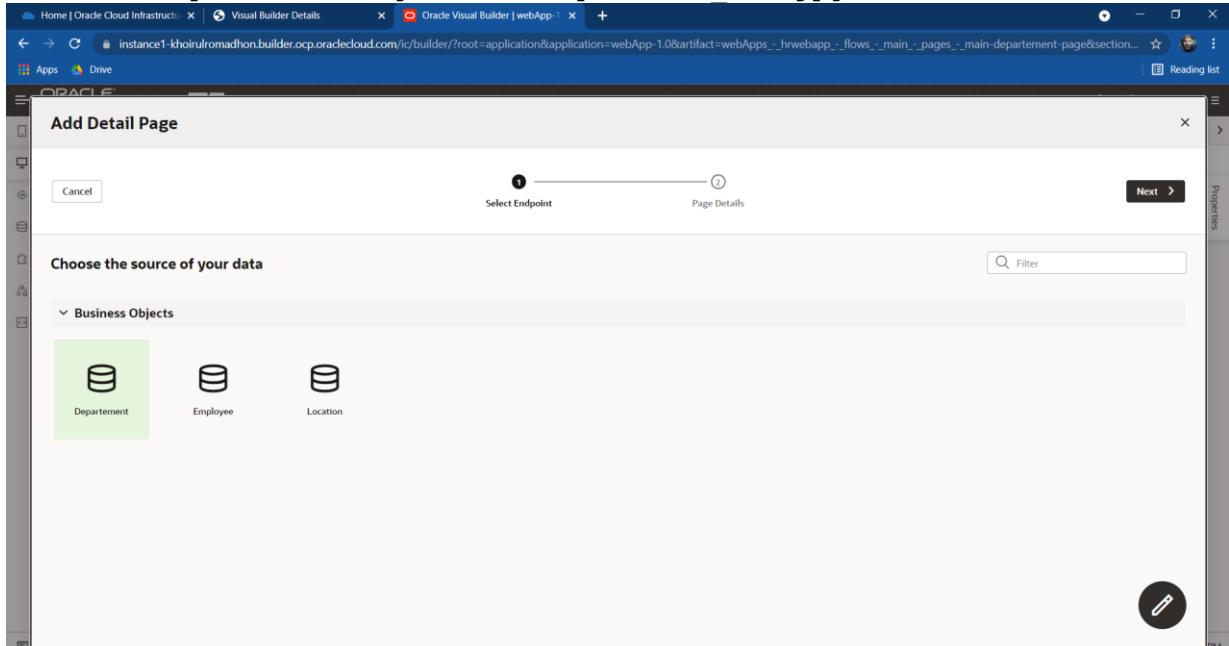
At the bottom of the main area, there is a footer with links for Audits, Find in Files, Logs, Trace, Tests, and Git History, along with a timestamp of Saved 9:35 AM.

The screenshot shows the Oracle Visual Builder interface with a modal dialog titled Add Edit Page. The dialog is divided into three steps: Select Read Endpoint, Select Update Endpoint, and Page Details. Step 1 is active, showing the heading Choose the source of your data and a list under Business Objects: Département (highlighted with a green background), Employee, and Location. A Next > button is at the top right of the dialog. To the right of the dialog, a Properties panel is visible.

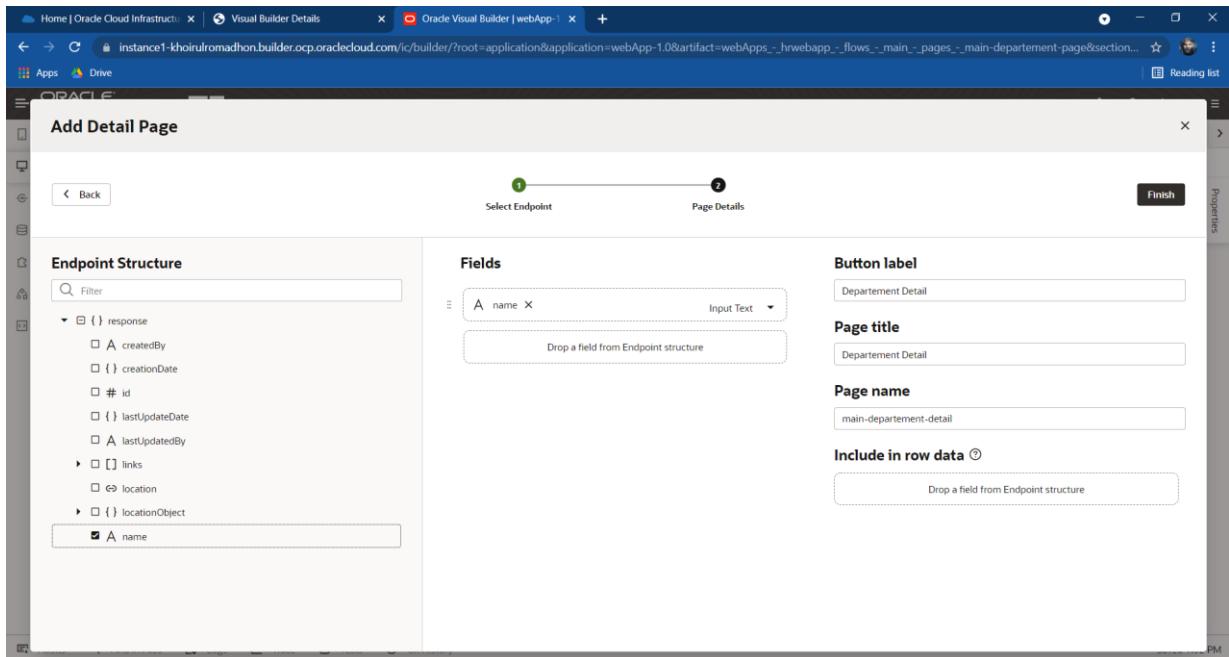
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! [data-manipulation] (img/data-manipulation\_1.2.jpg)

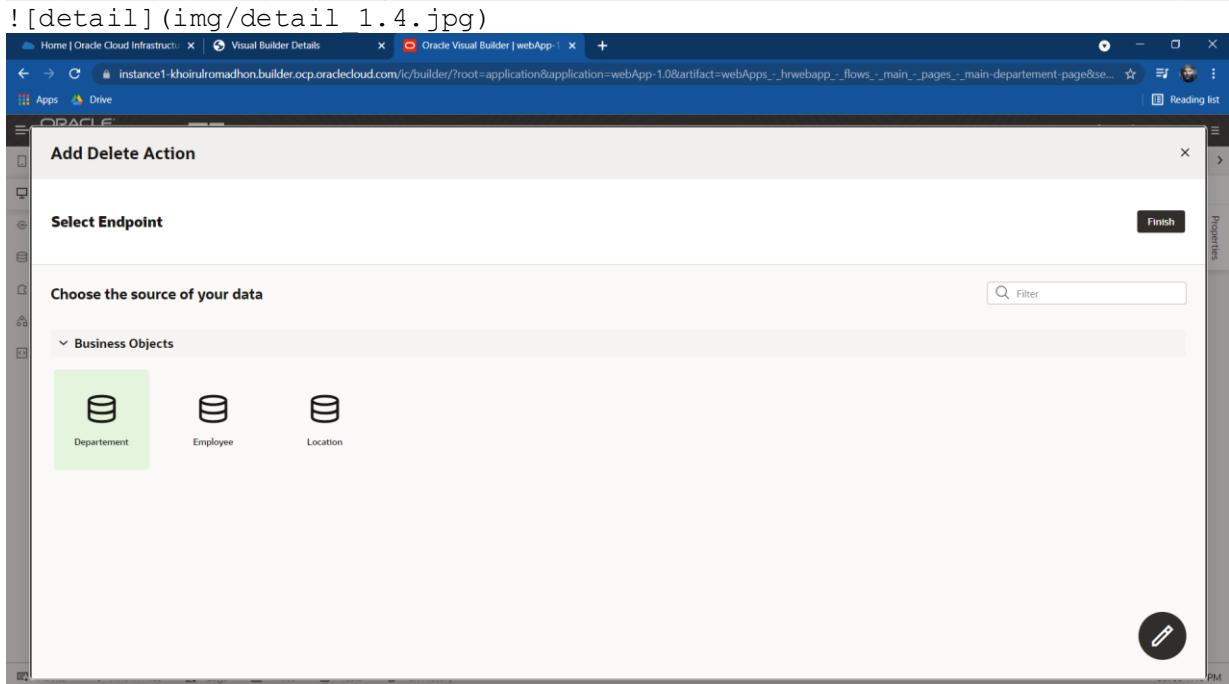
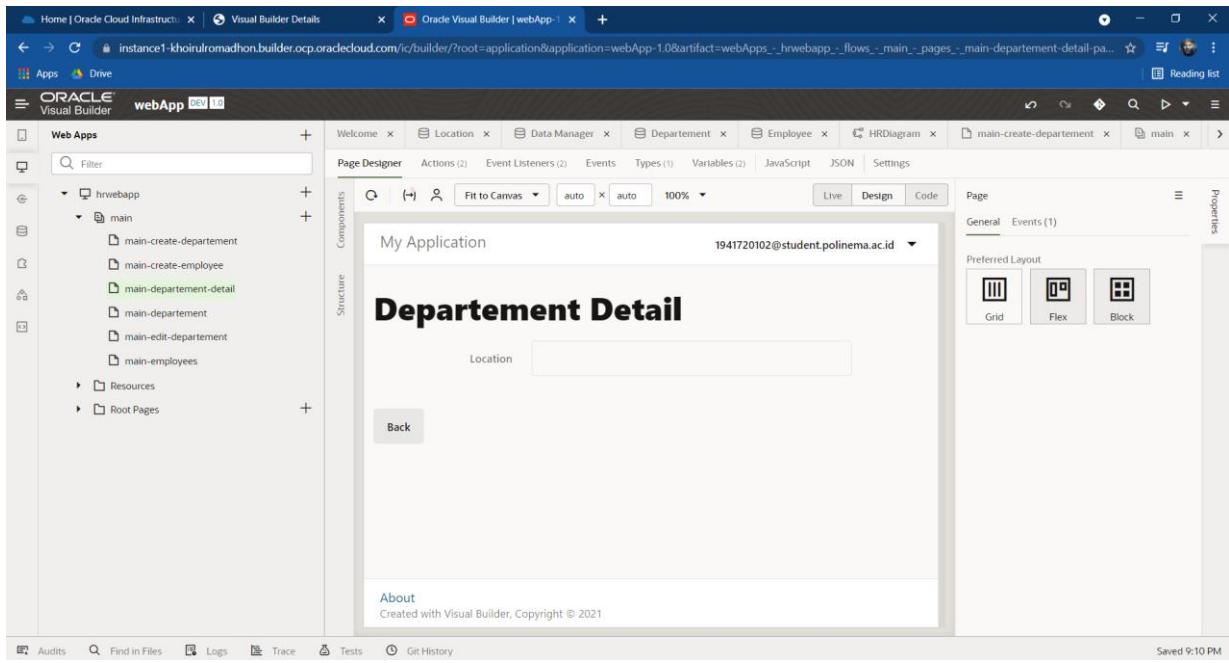


! [detail] (img/detail\_1.1.jpg)



! [detail] (img/detail\_1.2.jpg)

! [detail] (img/detail\_1.3.jpg)



! [detail] (img/delete\_1.1.jpg)