



Plantation Manager



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Plantation Manager



Setting Up Crops

INDEX

1. Introduction
2. Setting Up the Crop Layout
3. Bulk Settings
4. Managing Cells Individually



Plantation Manager

1

Introduction



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Introduction



Crops are set up in a Grid Format of Rows and columns.

Each cell represents a tree or plant, and can be managed individually.

However: For larger crops, the 'Bulk Operations' functionality can be used to simplify the setup process.

Introduction

The system will automatically determine the crop's growth stage based on its age in days.

1. The system currently uses the following crop growth stages: Germination, Seedling, Growth, Flowering and Production.
2. The age of each crop to transition from one stage to the next, is unique for every crop type and depends on the species.
3. For now, the following values will be used for the two built-in crops based on information that is publicly available. Should some or all of these values be found to be incorrect, these values can be adjusted in the system database:

CROP TYPE: Medjool Date Palm (<i>Phoenix dactylifera</i>)			
STAGE	START (AGE IN DAYS)	END (AGE IN DAYS)	STAGE DURATION
Germination	0	27	4 Weeks
Seedling	28	365	11 Months
Growth	366	1459	3 Years
Flowering	1460	5474	10 Years
Production	5475	N/A	N/A

CROP TYPE: Garden Tomato (<i>Solanum lycopersicum</i>)			
STAGE	START (AGE IN DAYS)	END (AGE IN DAYS)	STAGE DURATION
Germination	0	14	2 Weeks
Seedling	15	27	2 Weeks
Growth	28	55	4 Weeks
Flowering	56	70	2 Weeks
Production	71	N/A	N/A



Plantation Manager

2

Setting Up The Crop Layout



Setting Up the Crop Layout

1. Since no crops have been set up yet, no crop data is displayed on the dashboard.

2. Per Plantation, the crop is set up and managed.

On the Dashboard, the 'Layout' icon for the first Plantation is to be selected to start setting up the crop for this plantation specifically.

The screenshot shows the 'Plantation Manager' interface. On the left is a sidebar with 'Plantation Management' (expanded), 'Dashboard', 'Notes', and 'User Management'. The main area is titled 'Plantations Dashboard' and shows a 'Plantation Summary' with four cards: 'Total Plantations: 2 Plantations', 'Total Area Size: 5.5 ha', 'Crop Types: No Types', and 'Total Crops: No Crops'. A 'Crop Type Distribution' card shows 'No Data...'. Below is a 'Plantation List' table with two rows. The first row is highlighted, and a red box around the 'ACTION' column of the first row highlights a layout icon (a 2x2 grid).

PLANTATION NAME	COMPANY NAME	AREA SIZE	CROP TYPES	ACTION
Palm Plantation North Field	Palm Plantations Africa	3ha	No Crops	
Palm Plantation South Field	Palm Plantations Africa	2.5ha	No Crops	

Mobile Layout

The mobile view shows a 'Plantations Dashboard' with a 'Plantation Summary' section containing four cards: 'Plantations: 2 Plantations', 'Total Area: 5.5 ha', 'Crop Types: No Types', and 'Total Crops: No Crops'. Below is a 'Plantation List' with an 'Add Plantation' button and a table. The table has two rows. The first row is highlighted, and a red box around the 'ACTION' column highlights a layout icon (a 2x2 grid).

PLANTATION NAME	COMPANY NAME
Palm Plantation North Field	Palm Plantations Africa
Palm Plantation South Field	Palm Plantations Africa

Setting Up the Crop Layout

Crops are set up in the format of a Grid which consists of rows and columns.
By default, the 3 x 3 Grid Layout is displayed, which will cause the cells to be at its largest.

Desktop / Laptop / Tablet Layout

Plantation Layout Builder

test@novtel.com
Company Manager

Grid Settings

Rows 3

Cols 3

Bulk Operations

Crop Type

Empty

Date Planted

2026/03/25

Gender

Male

Cell Range

All Columns

All Rows

Bulk Update Crops

Layout State

Undo Changes

Reset Layout

A1 B1 C1

A2 B2 C2

A3 B3 C3

Mobile Layout

Plantation Layout Builder

Grid Settings

Rows 3

Cols 3

Bulk Operations

Crop Type

Empty

Date Planted

2026/03/25

Gender

Male

Cell Range

All Columns

All Rows

Bulk Update Crops

Layout State

Undo Changes

Reset Layout

Settings

Zoom Out

Save Changes

B1 C1

B2 C2

B3 C3

Setting Up the Crop Layout

As the row and/or column sliders or numbers are increased or decreased, the Grid's layout will be adjusted accordingly.

The Zoom Level is directly related to the number of rows and columns.

Increasing the size of the Grid, will automatically decrease the size of the cells.

The screenshot displays the 'Plantation Layout Builder' interface. On the left, a sidebar contains several sections: 'Grid Settings' (highlighted with a red box and an arrow pointing to the grid), 'Bulk Operations' (with checkboxes for Crop Type, Date Planted, and Gender, and dropdowns for Empty, 2026/03/25, and Male), 'Cell Range' (with dropdowns for All Columns and All Rows), 'Layout State' (with Undo Changes and Reset Layout buttons), and 'Settings' (with a Zoom Out slider, Save Changes button, and Back To Dashboard button). The main area shows a 7x12 grid of cells labeled A1 through L7. The top right corner features a user profile for 'test@novtel.com' with the title 'Company Manager'.

Setting Up the Crop Layout

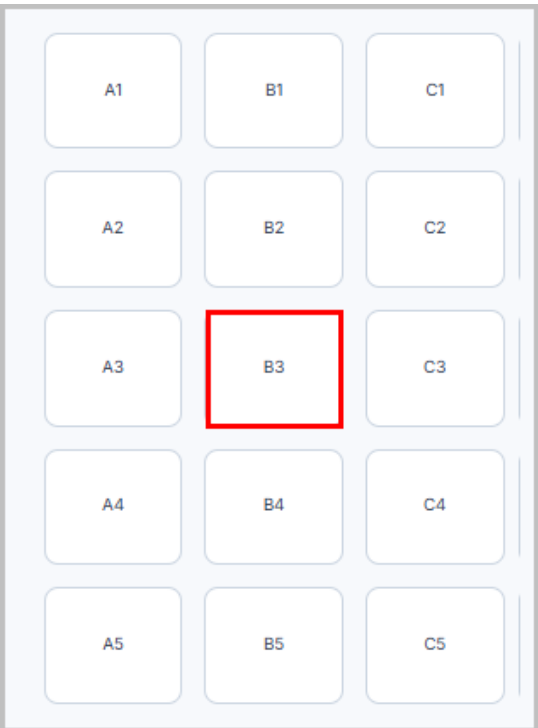
The columns are referred to as 'A', 'B', 'C', 'D', etc.

The Rows are numeric, starting at 1 at the top.

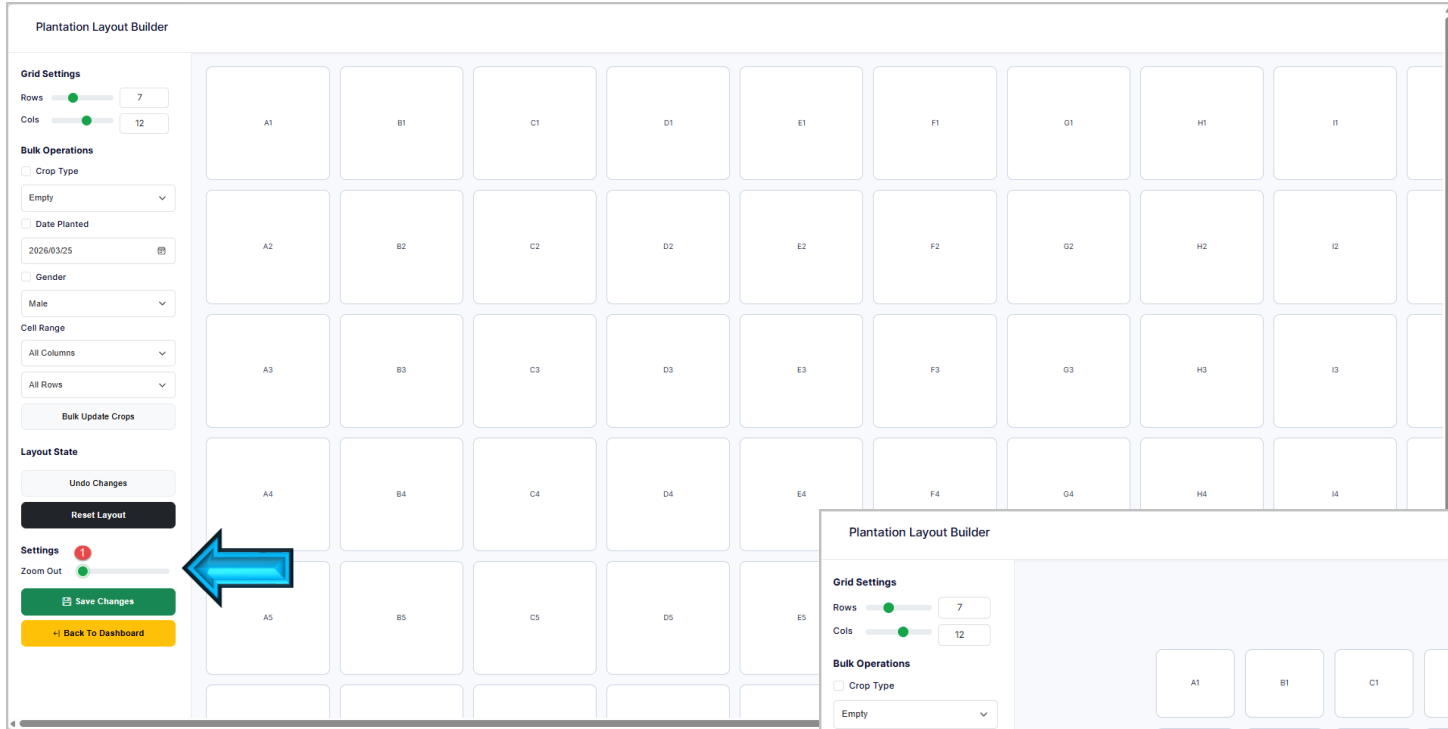


Crops are usually planted in columns and rows.

Therefore, we can refer to a specific 'cell' as – for example – 'B3' which represents a specific tree or plant.



Setting Up the Crop Layout



Also note that the zoom level can be managed manually, by simply zooming in or out above the 'Save Changes' button.

- 1. By sliding the zoom level to the left, the cells become larger, and the User will have to scroll to access cells not displayed in a single view.
- 2. Sliding the zoom level to the right, the cells become smaller, and little or no scrolling will be involved.





Plantation Manager

3

Bulk Settings



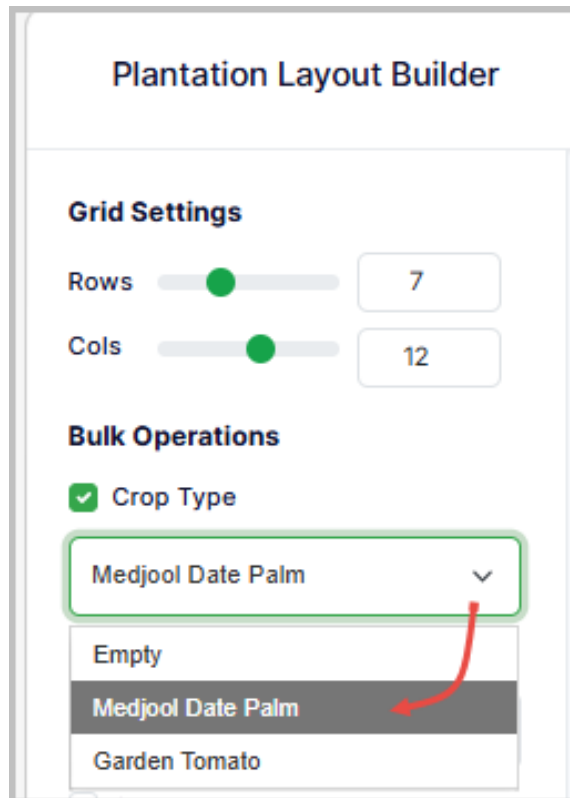
Image by vwalakte on Freepik



Image by freepik

Bulk Settings

The next step is to specify the type of crop for this specific plantation, as well as capturing other important settings and information. For larger crops, the 'Bulk Operations' settings can be used.



The screenshot shows the 'Plantation Layout Builder' interface. Under 'Grid Settings', 'Rows' is set to 7 and 'Cols' is set to 12. Under 'Bulk Operations', the 'Crop Type' checkbox is checked. A dropdown menu is open, showing three options: 'Medjool Date Palm' (highlighted with a red arrow), 'Empty', and 'Garden Tomato'.

Crop Type:

Currently, there are 2 available hard-coded options ONLY in the 'Crop Type' selection field.

In the future, a system administrator User will be able to create custom crop type options for your company.

The specific crop type for this plantation, is selected as 'Medjool Date Palm'.

Note that the 'Crop Type' option is ticked when an option is selected. This means that the changes will be applied to all rows and columns selected.

Bulk Settings

Plantation Layout Builder

Grid Settings

Rows 7

Cols 12

Bulk Operations

Crop Type

Medjool Date Palm

Date Planted

2023/10/22

October 2023

2023	▼		
Jan	Feb	Mar	Apr
May	Jun	Jul	Aug
Sep	Oct	Nov	Dec
2024	▼		
2025	▼		
2026	▼		
2027	▼		

Date Planted:

It is important to keep track of the age of the crop item, therefore, the 'Date Planted' setting is crucial.

The reason being that according to the growth stage, specific actions may be necessary. In this case, we have selected the date as 2023/10/02.

According to this date setting, Novtel will calculate the growth stage of the item.

Date Planted

2023/10/22

October 2023

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11

Clear Today

Gender:

Next, the 'Gender' of the crop item can be selected as either 'Male' or 'Female'.

Plantation Layout Builder

Grid Settings

Rows 7

Cols 12

Bulk Operations

Crop Type

Medjool Date Palm

Date Planted

2023/10/02

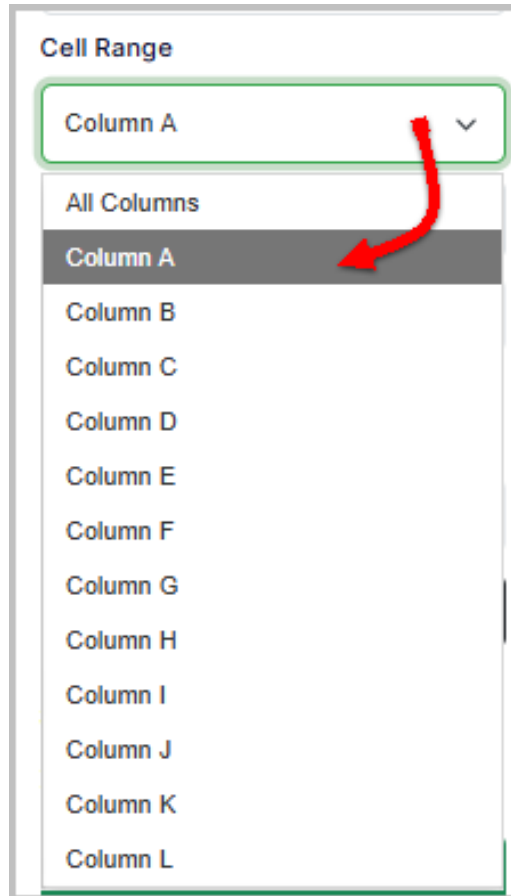
Gender

Male

Male

Female

Bulk Settings

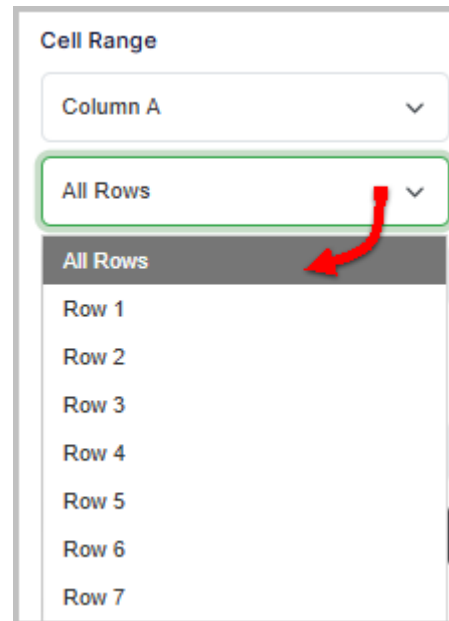


Cell Range:

As we wish to apply these settings to **Column A ONLY**, this option is selected.

However: Please note that if the settings apply to all columns, the 'All Columns' option is selected.

Next, a specific row can be selected, or all rows within the selected column only.



Bulk Settings

The screenshot shows the 'Plantation Layout Builder' interface. On the left, there are settings for 'Grid Settings' (Rows: 7, Cols: 12), 'Bulk Operations' (Crop Type: Medjool Date Palm, Date Planted: 2023/10/02, Gender: Male, Cell Range: All Rows), and 'Layout State' (Undo Changes). A red arrow points from the 'Bulk Update Crops' button in the Bulk Operations section to a confirmation dialog box. The dialog box has a question mark icon and the text: 'Crop Bulk Update. Are you sure you want to perform a bulk update for crops that fall inside the selected cell range?'. It has 'Yes' and 'No' buttons.

Bulk Update Crops

To update the settings for the first column and all rows linked to it, click on the 'Bulk Update Crops' button, and confirm the action by clicking 'Yes'.

The Grid will now be updated according to the settings applied.

The screenshot shows the updated plantation layout grid. The grid is a 7x12 grid of cells. The first column (A1-A7) is highlighted with a blue background and contains a palm tree icon, the text 'Medjool Date Palm', and 'Growth'. The other columns (B1-L1) are empty. A green notification box in the bottom right corner says 'Bulk Update Completed!' with a checkmark icon and a close button.

Bulk Settings

Plantation Layout Builder

Grid Settings

Rows 7

Cols 12

Bulk Operations

Crop Type
Medjool Date Palm

Date Planted
2023/10/02

Gender
Female

Cell Range
Column B

All Rows

Bulk Update Crops

Layout State

Undo Changes

Reset Layout

Settings

Zoom Out

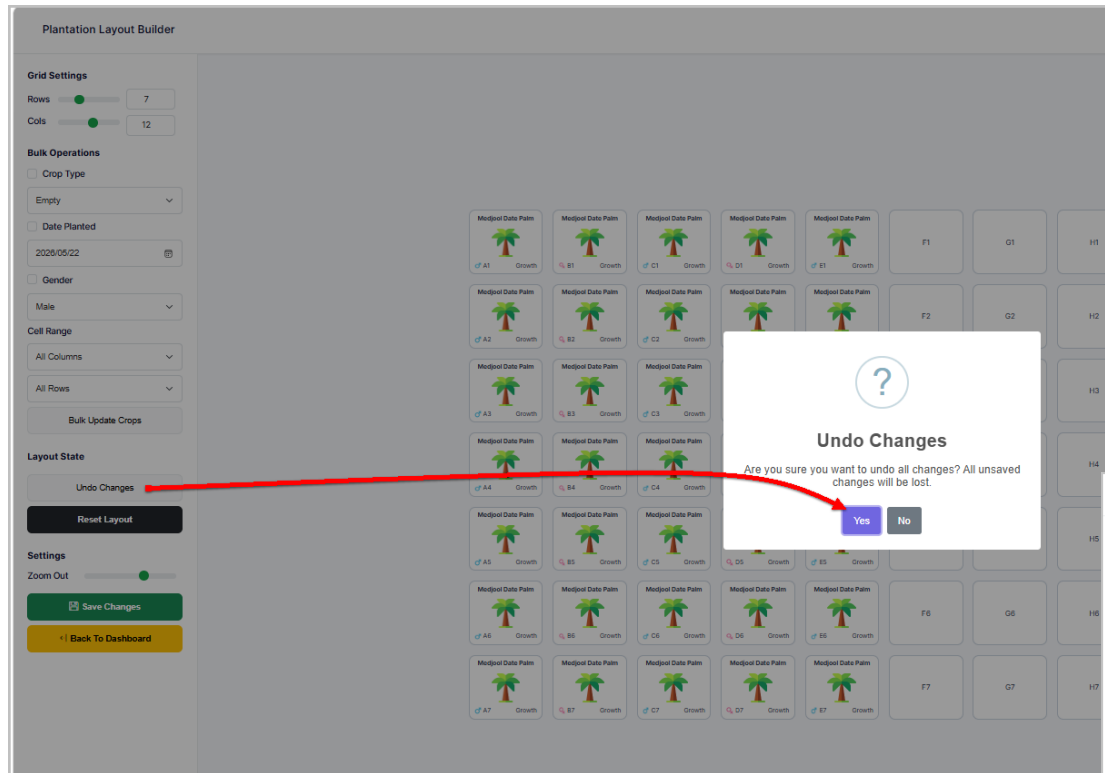
Save Changes

Back To Dashboard

To apply custom settings to column B and all rows linked to it, capture the settings and click 'Bulk Update Crops'.

After confirming the action, the Crop for column B will be updated accordingly.

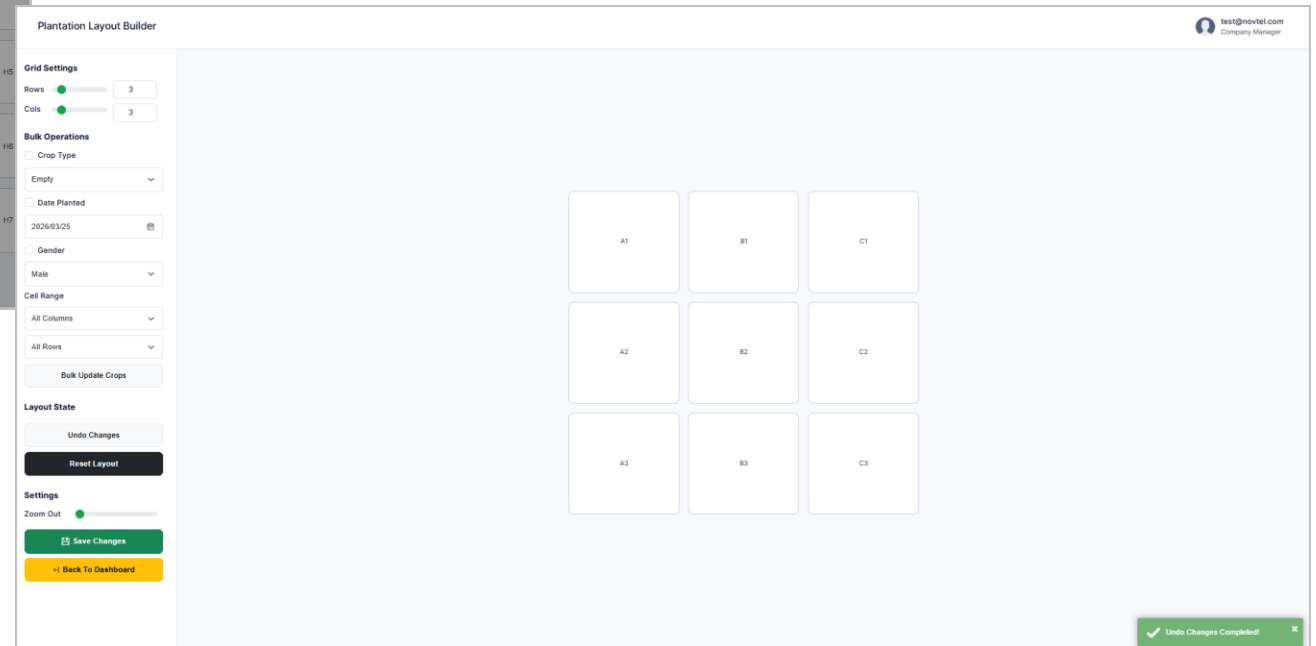
Bulk Settings



The process is repeated until the entire crop is set up.

However:

Should you wish to start over, simply click on the 'Undo Changes' button, and the Grid will reset to the original layout of 3 x 3.



Plantation Layout Builder

test@novtel.com
Company Manager

Grid Settings

Rows 7

Cols 12

Bulk Operations

Crop Type

Medjool Date Palm

Date Planted

2021/03/25

Gender

Male

Cell Range

All Columns

All Rows

Bulk Update Crops

Layout State

Undo Changes

Reset Layout

Settings

Zoom Out

Save Changes


Back To Dashboard

A1	B1	C1	D1	E1	F1	G1	H1	I1	J1	K1	L1
A2	B2	C2	D2	E2	F2	G2	H2	I2	J2	K2	L2
A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3	L3
A4	B4	C4	D4	E4	F4	G4	H4	I4	J4	K4	L4
A5	B5	C5	D5	E5	F5	G5	H5	I5	J5	K5	L5
A6	B6	C6	D6	E6	F6	G6	H6	I6	J6	K6	L6
A7	B7	C7	D7	E7	F7	G7	H7	I7	J7	K7	L7

In this case, we have set the number of rows to 7 again, and the columns to 12.

To update all columns and rows with the same information simultaneously, the Crop Type is selected; the date on which the crop was planted, selected, and the gender set.

The 'Cell Range' is selected as 'All Columns' and 'All Rows' before clicking the 'Bulk Update Crops' button, and confirming the action.



Crop Bulk Update

Are you sure you want to perform a bulk update for crops that fall inside the selected cell range?

Yes No

The Grid is now updated as follows:

Plantation Layout Builder test@novtel.com
Company Manager

Grid Settings
Rows 7
Cols 12

Bulk Operations
 Crop Type
Empty
 Date Planted
2026/05/22
 Gender
Male
Cell Range
All Columns
All Rows
Bulk Update Crops

Layout State
Undo Changes
Reset Layout

Settings
Zoom Out

Save Changes
Back To Dashboard

A1 Growth	B1 Growth	C1 Growth	D1 Growth	E1 Growth	F1 Growth	G1 Growth	H1 Growth	I1 Growth	J1 Growth	K1 Growth	L1 Growth
A2 Growth	B2 Growth	C2 Growth	D2 Growth	E2 Growth	F2 Growth	G2 Growth	H2 Growth	I2 Growth	J2 Growth	K2 Growth	L2 Growth
A3 Growth	B3 Growth	C3 Growth	D3 Growth	E3 Growth	F3 Growth	G3 Growth	H3 Growth	I3 Growth	J3 Growth	K3 Growth	L3 Growth
A4 Growth	B4 Growth	C4 Growth	D4 Growth	E4 Growth	F4 Growth	G4 Growth	H4 Growth	I4 Growth	J4 Growth	K4 Growth	L4 Growth
A5 Growth	B5 Growth	C5 Growth	D5 Growth	E5 Growth	F5 Growth	G5 Growth	H5 Growth	I5 Growth	J5 Growth	K5 Growth	L5 Growth
A6 Growth	B6 Growth	C6 Growth	D6 Growth	E6 Growth	F6 Growth	G6 Growth	H6 Growth	I6 Growth	J6 Growth	K6 Growth	L6 Growth
A7 Growth	B7 Growth	C7 Growth	D7 Growth	E7 Growth	F7 Growth	G7 Growth	H7 Growth	I7 Growth	J7 Growth	K7 Growth	L7 Growth

Bulk Settings

Plantation Layout Builder

Grid Settings
Rows: 7
Cols: 12

Bulk Operations
 Crop Type
Medjool Date Palm ✓
 Date Planted
2023/05/22 ✓
 Gender
Female ✓
Cell Range
All Columns ✓
Row 1 ✓
Bulk Update Crops ✓

Layout State
Undo Changes
Reset Layout

Settings
Zoom Out
Save Changes
Back To Dashboard

In this case, we wish to change the gender of all columns in row 1 to 'Female'.

Clicking the 'Bulk Update Crops' button and clicking 'Yes', the changes are made successfully.

Crop Bulk Update

Are you sure you want to perform a bulk update for crops that fall inside the selected cell range?

Yes No

Bulk Settings

The screenshot shows the 'Plantation Layout Builder' interface. On the left, there are control panels for 'Grid Settings' (Rows: 7, Cols: 12), 'Bulk Operations' (Crop Type: Empty, Date Planted: 2028-05-22, Gender: Male, Cell Range: All Columns, All Rows), 'Layout State' (Undo Changes, Reset Layout), and 'Settings' (Zoom Out, Save Changes, Back To Dashboard). The main area is a grid of 84 'Medjool Date Palm' icons arranged in 7 rows and 12 columns, labeled A1 through L7. A white dialog box with a question mark icon is centered over the grid, containing the text 'Save Changes' and 'Are you sure you want save changes made to the current layout? All removed crops will be deleted.' with 'Yes' and 'No' buttons. A red arrow points from the 'Save Changes' button in the left sidebar to the 'Yes' button in the dialog box.

Please note that the 'Save Changes' button must be clicked to actually save the Plantation Layout before returning to the Dashboard.

This diagram summarizes the 'Layout State' and 'Settings' sections. Under 'Layout State', there are buttons for 'Undo Changes' (light grey) and 'Reset Layout' (dark grey). Under 'Settings', there is a 'Zoom Out' slider, a 'Save Changes' button (green), and a 'Back To Dashboard' button (yellow) with a green checkmark icon.

Plantations Dashboard test@novtel.com
Company Manager

Plantation Summary

Total Plantations: 2 Plantations
Total Area Size: 5.5 ha
Crop Types: 1 Type
Total Crops: 84 Crops

Crop Type Distribution

Medjool Date Palm: 3

Plantation List

[Add Plantation](#) 1 - 2 of 2

PLANTATION NAME	COMPANY NAME	AREA SIZE	CROP TYPES	ACTION
Palm Plantation North Field	Palm Plantations Africa	3ha	Medjool Date Palm	
Palm Plantation South Field	Palm Plantations Africa	2.5ha	No Crops	

The 'Crop Type' for the first plantation has now been updated on the Dashboard.

1. Crop Types

Since we have only set up the 'Medjool Date Palm' crop, there is only 1 crop type indicated here.

2. Total Crops

As the Grid was set up as 7 x 12, the number of 'crops' is 7 times 12, which equals 84 trees.

3. Crop Type Distribution

As we only have 1 crop at present, the 'Crop Distribution' section only indicates the 'Medjool Date Palm' crop.

Bulk Settings

Plantation Layout Builder

test@novtel.com
Company Manager

Grid Settings

Rows 5

Cols 8

Bulk Operations

Crop Type

Empty

Date Planted

2028/05/22

Gender

Male

Cell Range

All Columns

All Rows

Bulk Update Crops

Layout State

Undo Changes

Reset Layout

Settings

Zoom Out

Save Changes

Back To Dashboard

If another crop is set up – such as a Tomato Crop on Plantation 2 - the Dashboard will include the second crop’s details in the various ‘Crops’ fields.

Plantation Manager

test@novtel.com
Company Manager

Plantations Dashboard

Plantation Management

- Dashboard
- Notes
- User Management

Plantation Summary

Total Plantations: 2 Plantations

Crop Types: 2 Types

Total Area Size: 5.5 ha

Total Crops: 124 Crops

Crop Type Distribution

- Medjool Date Palm
- Garden Tomato

Plantation List Add Plantation 1 - 2 of 2

PLANTATION NAME	COMPANY NAME	AREA SIZE	CROP TYPES	ACTION
Palm Plantation North Field	Palm Plantations Africa	3ha	Medjool Date Palm	
Palm Plantation South Field	Palm Plantations Africa	2.5ha	Garden Tomato	



Plantation Manager

4

Managing Cells Individually



Image by vwalakte on Freepik



Image by freepik

Managing Cells Individually

Plantations Dashboard test@novtel.com
Company Manager

Plantation Summary

Total Plantations: 2 Plantations
Crop Types: 2 Types
Total Area Size: 5.5 ha
Total Crops: 234 Crops

Crop Type Distribution

- Garden Tomato
- Medjool Date Palm

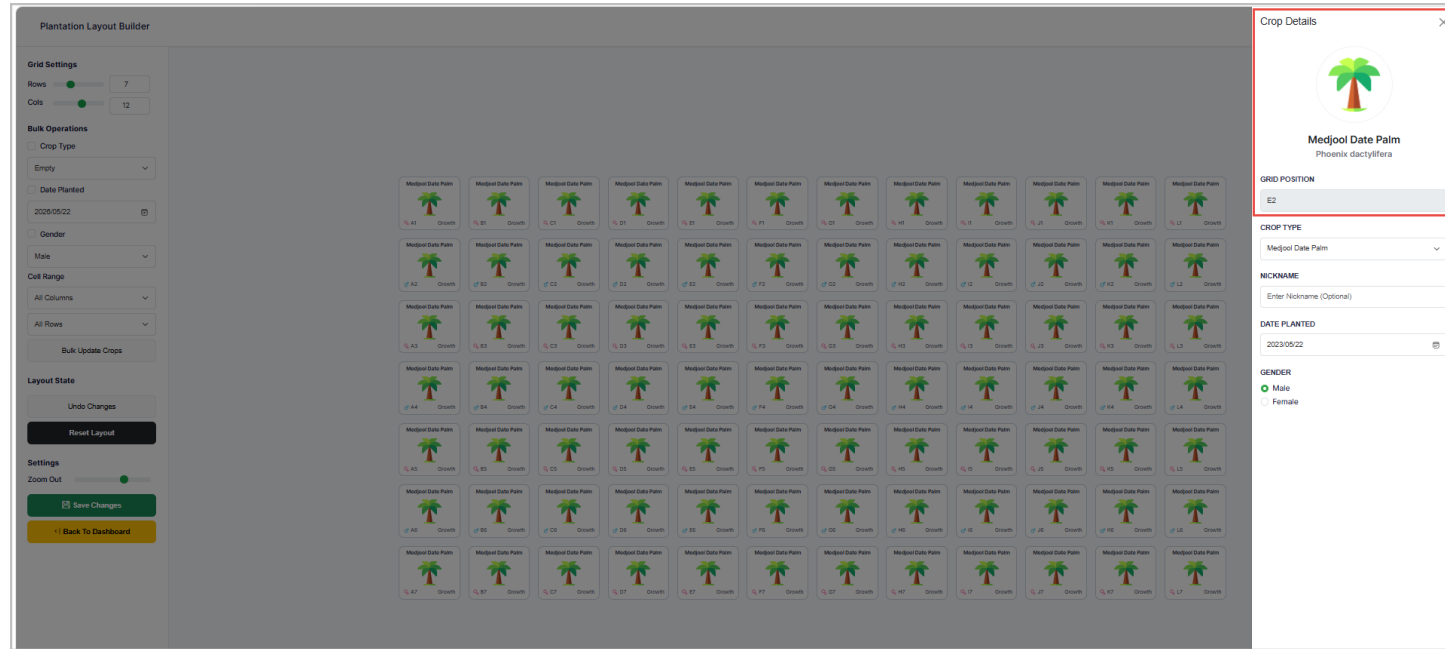
Plantation List Add Plantation 1 - 2 of 2

PLANTATION NAME	COMPANY NAME	AREA SIZE	CROP TYPES	ACTION
Palm Plantation North Field	Palm Plantations Africa	3ha	Medjool Date Palm	
Palm Plantation South Field	Palm Plantations Africa	2.5ha	Garden Tomato	

Should you wish to make changes to a specific cell (Crop Item), the 'layout' icon for the plantation in question must be selected to access the Plantation Layout Builder screen.

To edit the details of – for example – E2, the cell is clicked.

Managing Cells Individually



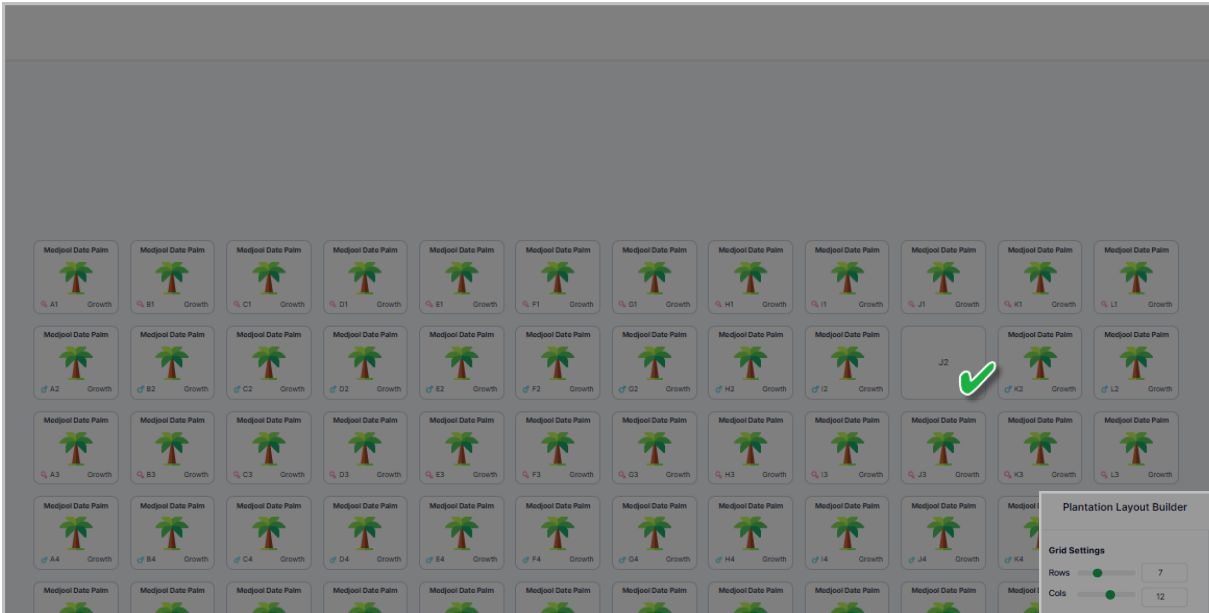
The Crop Details window opens to the right-hand side of the screen.

Here, the following details can be changed if needed:

- The Crop Type;
- A special nickname can be set for this cell;
- The Date on which the item was planted can be changed;
- And the Gender can be changed from male to female and visa versa.

All changes are instant, but must be saved in the 'Plantation Layout Builder' window.

Managing Cells Individually



Crop Details

Unknown Crop Type

GRID POSITION: J2

CROP TYPE: Empty

DATE PLANTED: 2023/05/22

If a crop item died or if the space was not planted, the 'Crop Type' can be changed to 'Empty', and the cell will be cleared.

Always save your changes before returning to the Dashboard, because without clicking the 'Save Changes' button, no change will be applied.

The Dashboard will also be updated after saving the changes.

Plantation Layout Builder

Grid Settings: Rows: 7, Cols: 12

Bulk Operations: Crop Type: Empty, Date Planted: 2023/05/22, Gender: Male, Cell Range: All Columns, All Rows

Layout State: Undo Changes, Reset Layout

Settings: Zoom Out, Save Changes, Back To Dashboard

Managing Cells Individually

Plantations Dashboard test@novtel.com
Company Manager

Plantation Summary

Total Plantations: 3 Plantations
Crop Types: 2 Types
Total Area Size: 7.5 ha
Total Crops: 123 Crops

Crop Type Distribution

- Medjool Date Palm
- Garden Tomato

Plantation List Add Plantation 1 - 3 of 3

PLANTATION NAME	COMPANY NAME	AREA SIZE	CROP TYPES	ACTION
Palm Plantation North Field	Palm Plantations Africa	3ha	Medjool Date Palm	
Palm Plantation South Field	Palm Plantations Africa	2.5ha	Garden Tomato	
Palm Plantation West Field	Palm Plantations Africa	2ha	No Crops	

Also note that an entire plantation can be managed cell by cell. However: This is not advised for a large plantation as the setup will prove extremely time consuming.

The Grid settings can now be set, and the first cell clicked to open the 'Crop Details' window for this cell specifically.

Plantation Layout Builder

Grid Settings
Rows: 5
Cols: 7

Bulk Operations

- Crop Type: Empty
- Date Planted: 2028/05/22
- Gender: Male

Cell Range
All Columns
All Rows
Bulk Update Crops

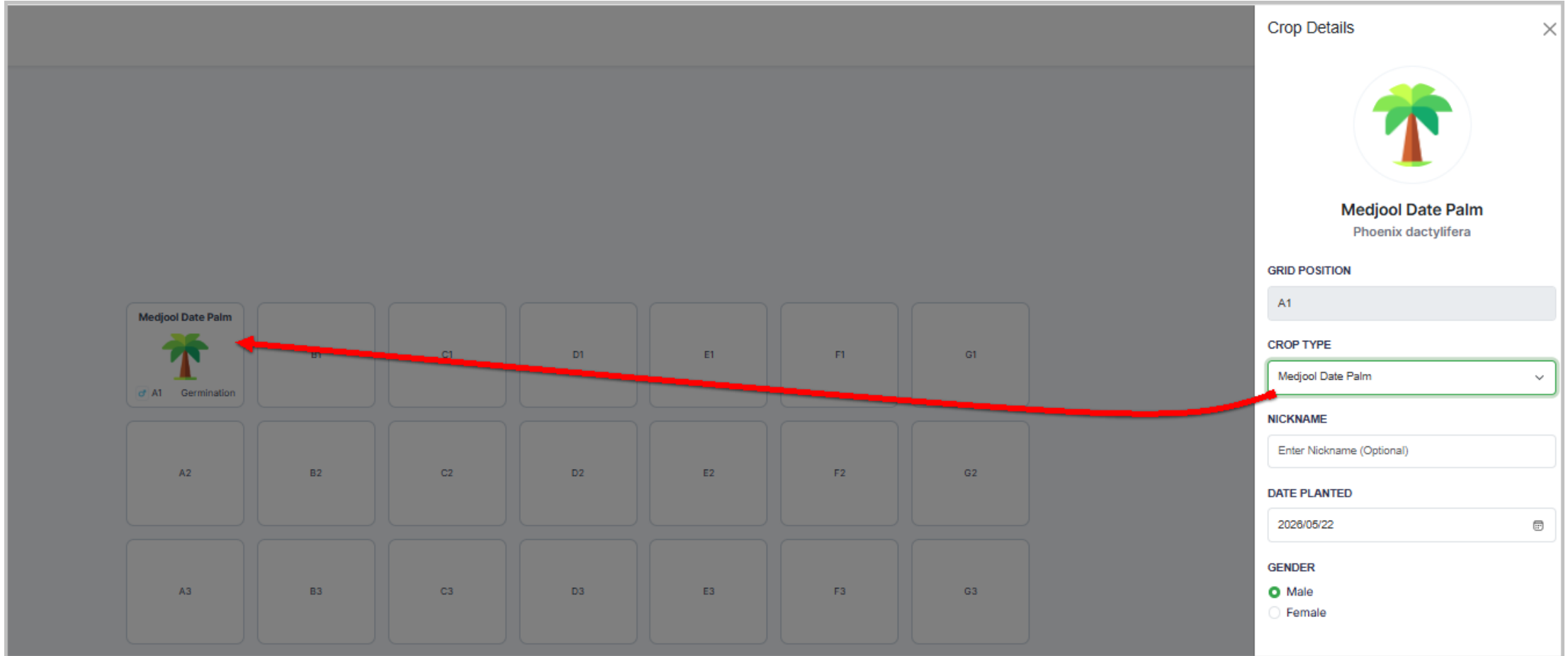
Layout State
Undo Changes
Reset Layout

Settings
Zoom Out
Save Changes
Back To Dashboard

A1	B1	C1	D1	E1	F1	G1
A2	B2	C2	D2	E2	F2	G2
A3	B3	C3	D3	E3	F3	G3
A4	B4	C4	D4	E4	F4	G4
A5	B5	C5	D5	E5	F5	G5

Managing Cells Individually

Selecting the Crop Type, the cell is affected immediately.



The screenshot displays a grid of 21 cells arranged in 3 rows and 7 columns. The top-left cell (A1) is highlighted and contains a palm tree icon, the text 'Medjool Date Palm', and 'Germination'. A red arrow points from the 'CROP TYPE' dropdown in the sidebar to this cell. The sidebar, titled 'Crop Details', contains the following information:

- Crop Details** (with a close button)
- 
- Medjool Date Palm**
Phoenix dactylifera
- GRID POSITION**
A1
- CROP TYPE**
Medjool Date Palm (dropdown menu)
- NICKNAME**
Enter Nickname (Optional)
- DATE PLANTED**
2026/05/22 (calendar icon)
- GENDER**
 Male
 Female

Managing Cells Individually

1. If a Nickname is entered, the Crop Type description is replaced on the cell with the nickname.
2. The date on which the crop item was planted, is to be captured, and Novtel will calculate the number of days since then up until the current date.
3. The Gender of the crop item is to be selected here, and the symbol will be displayed on the cell.

All other cells can also be managed in the same manner, and when done, the changes MUST be saved by clicking on the 'Save Changes' button.

Returning to the Dashboard, it will be updated with the data captured.

The image displays two side-by-side screenshots of the Novtel interface. The left screenshot shows a grid of cells (A1-G5) with a 'Crop Details' panel open for 'Medjool Date Palm' (Phoenix dactylifera) at grid position A1. The 'Crop Details' panel includes fields for Grid Position (A1), Crop Type (Medjool Date Palm), Nickname (Palm Tree A1), Date Planted (2020/05/22), and Gender (Female). The right screenshot shows the 'Plantation Layout Builder' panel with a 5x7 grid. A 'Save Changes' button is highlighted in green, and a red arrow points from this button to the 'Save Changes' button in the 'Crop Details' panel. A 'Save Changes' dialog box is also visible over the grid, asking 'Are you sure you want save changes made to the current layout? All removed crops will be deleted.' with 'Yes' and 'No' buttons.



<https://x.com/NovtelSoftware>

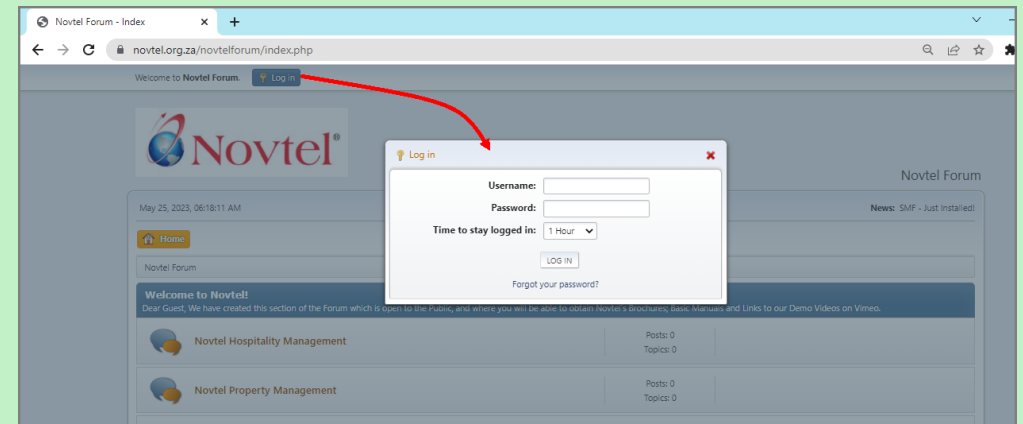


www.linkedin.com/company/novtel-software-training

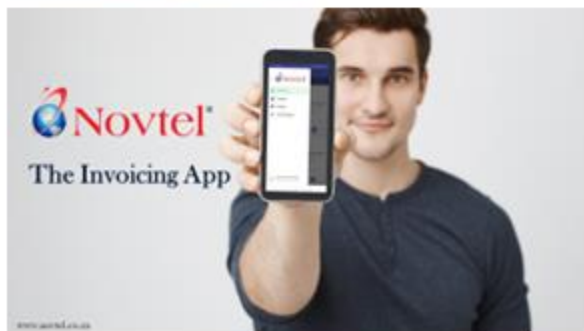


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