

Don't Panic: A Journey from Spreadsheets to Advanced Data Solutions

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Why this journey matters?

- ▶ 1. Data Drives Decision-Making
- ▶ 2. Efficiency and Scalability
- ▶ 3. Real-Time Insights
- ▶ 4. Competitive Advantage
- ▶ 5. Error Reduction
- ▶ 6. Collaboration and Integration
- ▶ 7. Preparing for the Future



Limitations of Spreadsheets

Inefficiency

- **Time-Consuming Tasks:**
 - Manual data entry, cleaning, and formatting are time-intensive.
 - Repetitive tasks (like creating monthly reports) require duplicate effort.
- **Slow Processing:**
 - Spreadsheets struggle to handle large datasets, leading to slower performance and crashes.
- **Version Control Chaos:**
 - Tracking changes across multiple versions of the same file can be tedious and error-prone.

Human Errors

- **Manual Entry Mistakes:**

- Typos, formula errors, and inconsistent data formats are common.
- Small mistakes can cascade into major business issues (e.g., financial inaccuracies, inventory mismanagement).

- **Hidden Errors:**

- Mistakes in complex formulas or hidden cells are difficult to identify and resolve.
- Excel formula = IF(AND(D2>0,D2<=8),2,IF(AND(D2>8,D2<20),1,0))

- **Difficult Audit Trail:**

- Changes are hard to track, making it impossible to identify the source of an error.

Scalability Challenges

- Data Volume Limits
- Complex Workflows
- Growth Bottlenecks

Security and Integrity Risks

- Data Loss
- Insufficient Access Controls
- Vulnerability to Cyber Threats

Introducing Advanced Data Solutions



Key Components of Advanced Data Solutions

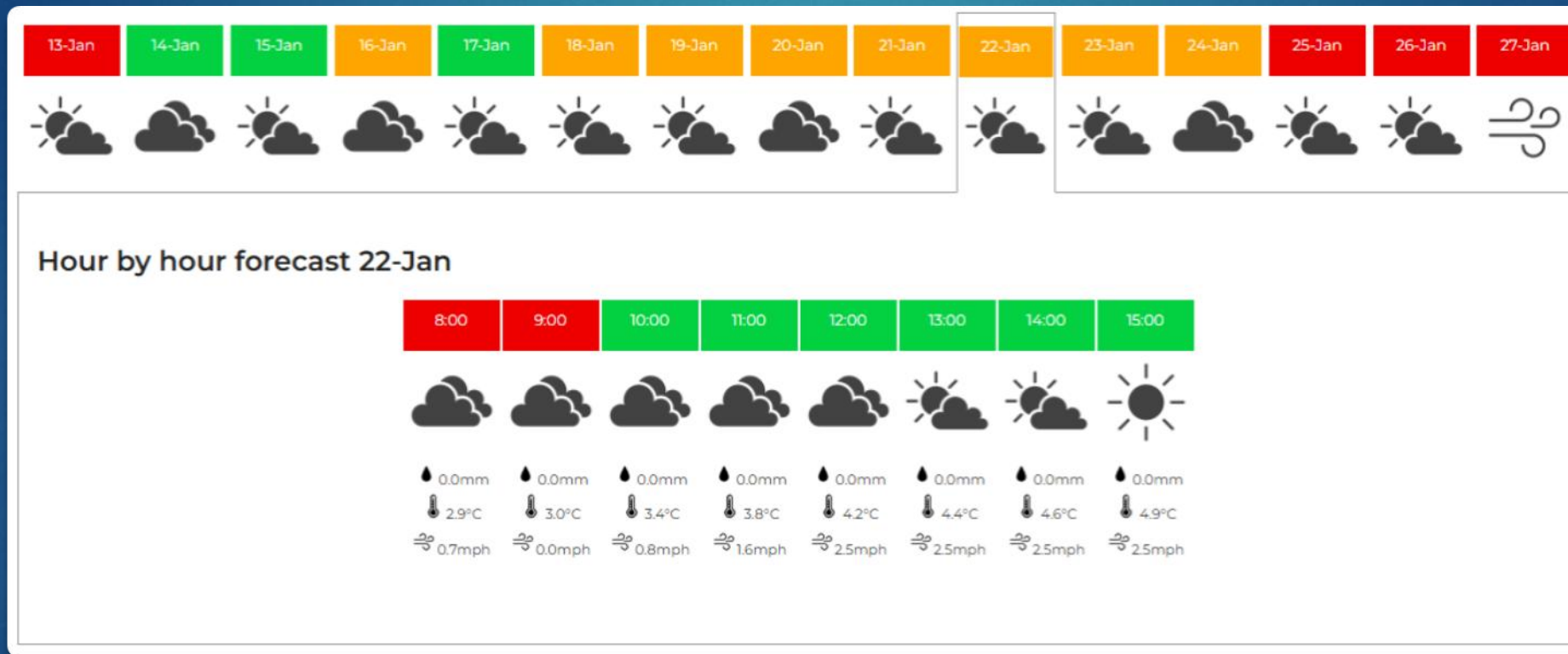
- Store large volumes of data efficiently.
- Process and analyze data quickly.
- Enable collaboration across teams.
- Automate repetitive tasks.
- Provide real-time insights for decision-making.
- Data input can be sanitized and kept consistent
- Documents and Images can be uploaded
- Barcodes can be scanned to speed up searching and inputting data



Application Programming Interfaces

- ▶ APIs are a set of rules and protocols that allow different software applications to communicate and share data seamlessly.
- ▶ APIs act as intermediaries, enabling systems to connect and exchange information in a structured, secure, and efficient way.
- ▶ Example's:
 - ▶ Weather data and forecasts
 - ▶ Shipping Cost Calculators
 - ▶ Payment Gateways
 - ▶ Transferring data between software ie Accounts Software
 - ▶ Webhooks receiving data ie new orders from different sales platforms

Example use of weather data API.



Benefits of Databases for Horticulture

- ▶ Track crops
- ▶ Record data consistently
- ▶ Share data between departments
- ▶ Share data to other systems
- ▶ Reduce Waste
- ▶ Management Reports
- ▶ Compliance
- ▶ One central data location

How to advance your journey

- ▶ Review your requirements
- ▶ What skills do you have in house?
- ▶ Do you need external help?
- ▶ Does a solution exist?
- ▶ Does an of the shelf solution meet all your needs?
- ▶ Bespoke is not always costly.
- ▶ The wrong solution is costs the most.

Where to next?



Thank you for listening

Your questions please?

