README - Nellis Leave Management - bespoke v2

This README documents the setup for managing employee leave requests in Airtable. The system enforces rules such as preventing overlapping leaves for employees in the same role and capping leave durations per event and per year. It leverages Airtable's tables, fields, formulas, and automations.
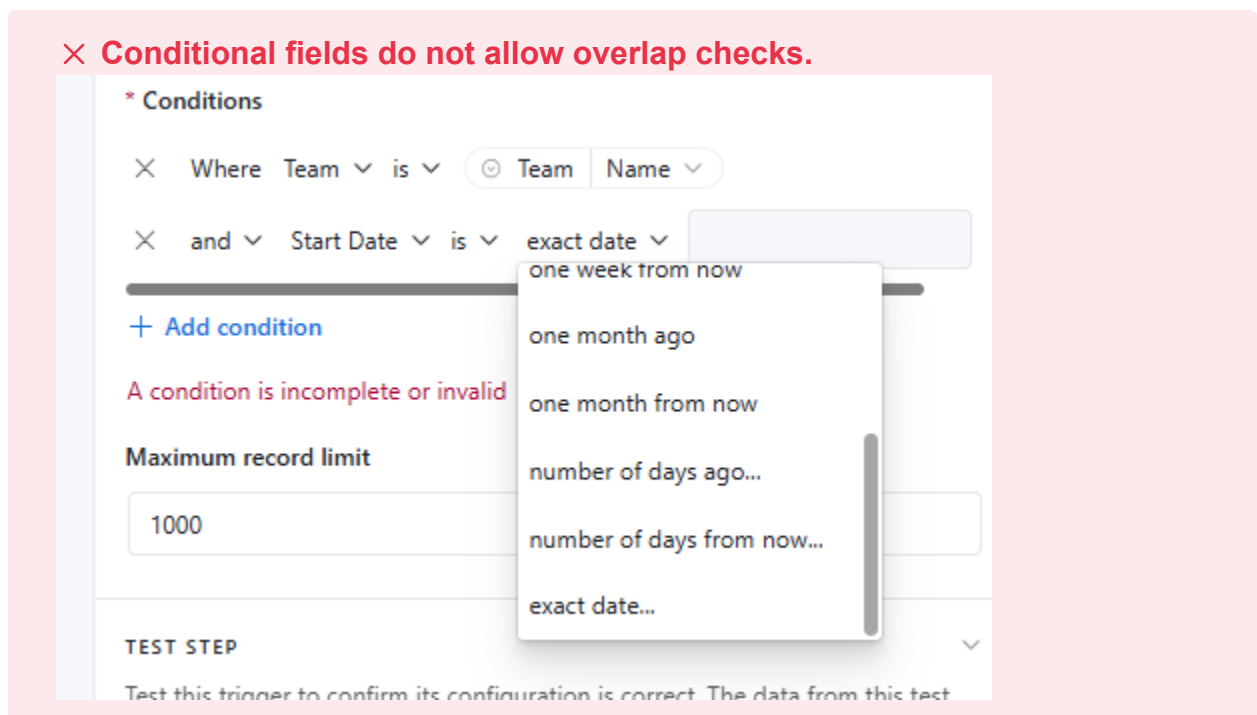
Requirements and Planning

No Two of the Same Role on Leave at the Same Time

Ensure no overlapping approved leaves for employees in the same role.

Possible Solutions

1. **Automation Check for Same Role and Period**:
   - Add an automation "Same Role Same Period" to check for overlaps.
   - If overlaps exist, set `Status` to "Denied".

2. **Populate Per-Role Leave Dates**:
   - On leave entry, populate [Leave per Role](#) with `Lapsed Dates` (all dates between Start Date and End Date) using a script and automation (no native Airtable formula supports this).

- Use a rollup and formula to determine `Role Dates Overlap` (Yes/No) for **approved leaves only**.
- Automation (on form submission) checks this field; if "Yes", set `Overlaps with Previously Approved` (Yes/No) and update `Status` to "Denied".

> ✕ [Run Script: Determine if Overlap Present](#) **not evaluating correctly.**

Cap Leave for Various Leave Types

In One Sitting (Per Event)

- When a leave is requested, use a formula "Exceed [Type] Duration (in one sitting)" to check if the duration exceeds limits.
- If exceeded, automation sets `Status` to "Denied".

Limits:

- Vacation: 7 working days per event (DONE).
- Sick days: 5 working days per event (DONE).

In a Year

- Vacation: 7 working days per year.
- Work from Home: 15 working days per year.
- Sick days: 5 working days per year.

Implementation

Adaptations to Existing Tables

Leave Detail

Alterations

Leave Request (Form)

- Limit selections to employees with <u>Active at Company</u> status in <u>Leave Overview</u>.

Leave Status

Formula to determine status based on dates:

```
IF(
  IS_BEFORE({Start Date}, TODAY()),
  // if leave start date before today
  IF(
    IS_AFTER({End Date}, TODAY()),
    // if leave end date is after today
    'leave in progress',
    // if leave end date is before today
    'leave taken'
  ),
  // if leave start date after today
  'upcoming leave'
)
```

Reason (According to Automation)

⠿	Sick Leave Duration Exceeded (per event)	✕
⠿	Sick Leave Allowance Exceeded (per year)	✕
⠿	Leave from Same Roles Overlap	✕
⠿	Vacation Leave Duration Exceeded (per event)	✕
⠿	Vacation Leave Allowance Exceeded (per year)	✕
⠿	Work from Home Allowance Exceeded (per year)	✕

New Fields for No Two of the Same Role on Leave at the Same Time

Role

- Lookup from Leave Overview.

Link to Leave per Role

- Linked to Leave per Role.
- Populated via automation Role: Leave Request Form Submitted.

Lapsed Dates

- List of dates between 'Start Date' and 'End Date'.
- Populated via automation Role: Leave Request Form Submitted.

Record ID

- Airtable record ID for reference in automations.

New Fields for Cap Leave for Various Leave Types

Number of Working Days

```
WORKDAY_DIFF({Start Date}, {End Date})
```

Exceed Sick Leave Allowance (Per Event)

```
IF(AND(Type="Sick Leave", {Number of Working Days} > 5), "Yes", "No")
```

Exceed Vacation Leave Allowance (Per Event)

```
IF(AND(Type="Vacation Leave", {Number of Working Days} > 7), "Yes", "No")
```

Link to Sick Leave

- Updated with "Team Member" via automation [Sick: Leave Request Form Submitted](#).

Exceed Sick Leave Allowance (Per Year)

- Text field updated via automation [Cap: Leave Request Form Submitted (PART 1)](#) (copies value from [Sick Leave > Exceed Sick Leave Allowance (Per Year)](#) to preserve historical checks).

Link to Work from Home

- Updated with "Team Member" via automation [Work from Home: Leave Request Form Submitted](#).

Exceed Work from Home Allowance (Per Year)

- Text field updated via automation [Work from Home: Leave Request Form Submitted](#) (copies value from [Work from Home > Exceed Work from Home Allowance (Per Year)](#) to preserve historical checks).

Link to Vacation Leave

- Updated with "Team Member" via automation [Vacation: Leave Request Form Submitted](#).

Exceed Vacation Leave Allowance (Per Year)

- Text field updated via automation [Cap: Leave Request Form Submitted (PART 1)](#) (copies value from [Vacation Leave > Exceed Vacation Leave Allowance (Per Year)](#) to preserve historical checks).

Leave Overview

New Fields

Active at Company

- Checkbox to indicate active employees.
- Used to filter dropdown in [Leave Detail > Leave Request (Form)](#) via view `ACTIVE MEMBERS`.

New Fields for [No Two of the Same Role on Leave at the Same Time](#)

Role

- Employee's role (e.g., Principal Architect).

New Tables

Sick Leave

- Tracks sick leave per employee per year.

Link to Leave Overview

- Linked for uniformity; ensures automation updates use "Team Member".

Link to Leave Detail

- Links to leave entries.

Record ID (From Leave Detail)

- Lookup from [Leave Detail](#); used in [Cap: Leave Request Form Submitted (PART 1)](#).

Approved Sick Leave (For This Year)

- Rollup of [Number of Working Days](#) where `Status` is "Approved".

Applied Sick Leave (For This Year)

- Rollup of [Number of Working Days](#) where `Status` is "Applied" or "Pending".
- Limitation: Assumes only the newest entry is pending (processed sequentially).

Exceed Sick Leave Allowance (Per Year)

```
IF({Approved Sick Leave (For This Year)} + {Applied Sick Leave (For This
Year)} > 5, "Yes", "No")
```

Work from Home

- Tracks work-from-home leave per employee per year.

Link to Leave Overview

- Linked for uniformity.

Link to Leave Detail

- Links to leave entries.

Record ID (From Leave Detail)

- Lookup from [Leave Detail](#).

Approved Work from Home (For This Year)

- Rollup of [Number of Working Days](#) where `Status` is "Approved".

Applied Work from Home (For This Year)

- Rollup of [Number of Working Days](#) where `Status` is "Applied" or "Pending".
- Limitation: Assumes sequential processing.

Exceed Work from Home Allowance (Per Year)

```
IF({Approved Work from Home (For This Year)} + {Applied Work from Home (For
This Year)} > 15, "Yes", "No")
```

Vacation Leave

- Tracks vacation leave per employee per year.

Link to Leave Overview

- Linked for uniformity.

Link to Leave Detail

- Links to leave entries.

Record ID (From Leave Detail)

- Lookup from [Leave Detail](#).

Approved Vacation Leave (For This Year)

- Rollup of [Number of Working Days](#) where `Status` is "Approved".

Applied Vacation Leave (For This Year)

- Rollup of [Number of Working Days](#) where `Status` is "Applied" or "Pending".
- Limitation: Assumes sequential processing.

Exceed Vacation Leave Allowance (Per Year)

```
IF({Approved Vacation Leave (For This Year)} + {Applied Vacation Leave (For
This Year)} > 7, "Yes", "No")
```

Leave per Role

- Roles: Principal Architect and Founder, Associate Architect, Senior Architect, Architect, Technical Architect, Senior Interior Designer, Interior Design Architect, Landscape Architect, Visual Architect, Studio Curator.

Link to Leave Detail

- Linked as `Leave Detail`.

(Approved) Lapsed Dates

- Rollup of unique `Lapsed Dates` where `Status` is "Approved".

```
UNIQUEARRAY(values)
```

- Excludes pending, denied, or cancelled leaves.

(Applied) Lapsed Dates

- Rollup of unique `Lapsed Dates` where `Status` is "Applied" or "Pending".

Overlapping Dates

- Formula to check for overlaps:

```
IF(
  AND({(Applied) Lapsed Dates}, {(Approved) Lapsed Dates}),
  IF(
    FIND(
      ARRAYJOIN({(Applied) Lapsed Dates}, ","),
      ARRAYJOIN({(Approved) Lapsed Dates}, ",")
    ),
    "Yes",
    "No"
  ),
  BLANK()
)
```

Leave Detail Record ID

- Lookup of [Record ID](#) from [Leave Detail](#).
- Used in [Role: Leave Request Form Submitted](#).

New Automations

Restart at End of Each Year

- On the last day of the year, clear linked fields in [Sick Leave](#), [Vacation Leave](#), and [Work from Home](#).

For [No Two of the Same Role on Leave at the Same Time](#)

Role: Leave Request Form Submitted

Trigger: Form Submitted

- Form "Leave Request" from [Leave Detail](#).

Run Script: Determine Dates Between Start and End Date

Inputs ⌄

These let you use values from previous automation triggers and actions. Use in your script with `input.config()`.

ⓘ Learn more

Name 🗑

Start

Value

📅 Start Date ⌄   ➕

Name 🗑

End

Value

📅 End Date ⌄   ➕

➕ Add input variable

```javascript
// Get all input values in a single call
const config = input.config();
const startDate = config.Start;
const endDate = config.End;

// Convert input strings to Date objects
const start = new Date(startDate);
const end = new Date(endDate);

// Validate dates
if (isNaN(start) || isNaN(end)) {
  throw new Error("Invalid date format. Please use YYYY-MM-DD format.");
}

// Ensure start date is before end date
if (start > end) {
  throw new Error("Start date must be before end date.");
}

const dates = [];
const currentDate = new Date(start);
```

```
// Loop through dates and add to array
while (currentDate <= end) {
  // Format date as YYYY-MM-DD for Airtable compatibility
  const formattedDate = currentDate.toISOString().split('T')[0];
  dates.push(formattedDate);
  currentDate.setDate(currentDate.getDate() + 1);
}

// Set the result as output for Airtable automation
output.set("dates", dates);
```

Update Said Record: Dates and Record Link

- Update Lapsed Dates with script results.
- Update Link to Leave per Role with Role lookup (creates link to Leave per Role).

Find Records

- Use Record ID to find the matching record in Leave per Role (expects one result).

Run Script: Determine if Overlap Present

```
// Get all input values in a single call
const config = input.config();
const appliedDates = config.AppliedDates;
const approvedDates = config.ApprovedDates;

// Check if any date in appliedDates matches any date in approvedDates
const matchFound = appliedDates.some(date => approvedDates.includes(date));

// Set the result as output for Airtable automation
output.set("match", matchFound ? "Yes" : "No");
```

Update Found Record

- Update <u>Overlapping Dates</u> with script result.

For <u>Cap Leave for Various Leave Types</u>

Sick: Leave Request Form Submitted

Trigger: Form Submitted

Check Conditions

- If `Type` is "Sick Leave" and <u>Exceed Sick Leave Allowance (Per Event)</u> is "Yes":
  - Update `Status` to "Denied".
  - Update <u>Reason (According to Automation)</u> to "Sick Leave Duration Exceeded (per event)".

Check Conditions

- If `Type` is "Sick Leave":
  - Update <u>Link to Sick Leave</u> with "Team Member".

Vacation: Leave Request Form Submitted

Trigger: Form Submitted

Check Conditions

- If `Type` is "Vacation Leave" and <u>Exceed Vacation Leave Allowance (Per Event)</u> is "Yes":
  - Update `Status` to "Denied".
  - Update <u>Reason (According to Automation)</u> to "Vacation Leave Duration Exceeded (per event)".

Check Conditions

- If `Type` is "Vacation Leave":
  - Update [Link to Vacation Leave](#) with "Team Member".

Work from Home: Leave Request Form Submitted

Trigger: Form Submitted

Check Conditions

- If `Type` is "Work from Home":
  - Update [Link to Work from Home](#) with "Team Member".

Cap: Leave Request Form Submitted (PART 1)

Trigger: Form Submitted

Check Condition

- Repeat for each `Type` (Sick, Vacation, Work from Home).

Find Record

- In [Work from Home](#), [Sick Leave](#), or [Vacation Leave](#) matching the new entry via [Record ID](#).

Update Record

- Copy exceed value to [Leave Detail](#) (e.g., [Exceed Work from Home Allowance (Per Year)](#) from [Work from Home > Exceed Work from Home Allowance (Per Year)](#)).

Cap: Leave Request Form Submitted (PART 2)

Trigger: Fields Updated

- Watches [Exceed Work from Home Allowance (Per Year)](#), [Exceed Sick Leave Allowance (Per Year)](#), [Exceed Vacation Leave Allowance (Per Year)](#).

Check Conditions

- If any is "Yes":
  - Update `Status` to "Denied".
  - Update [Reason (According to Automation)](#) accordingly.
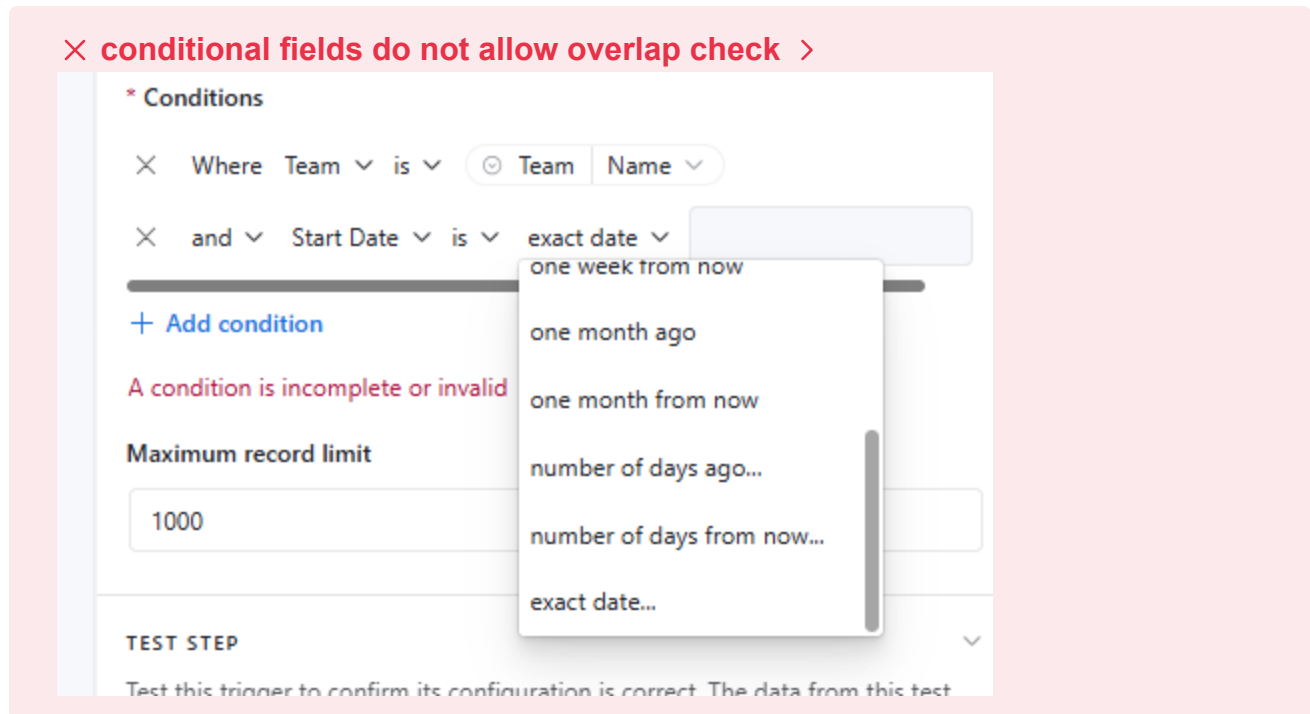
Start Over at Year End

- On last day of year, clear [Link to Sick Leave](#), [Link to Work from Home](#), and [Link to Vacation Leave](#) in [Leave Detail](#).

Requirements and Planning

no two of the same role on leave at the same time

POSSIBLE SOLUTIONS

1. add automation "Same Role Same Period" to check
   and if others over same period `Staus` -> "Denied"

2. have leave entry populate [Leave per Role](#) per team with `Dates Lapse` (all dates between
   Start - End Date) - USE SCRIPT AND AUTOMATION TO PUPULAT EFIELD SINVCE NO
   AIRTABLE FORMULA
   then using roll-up and function determine if there is overlap in dates `Role Dates Overalp`
   (Yes / No) **that have already been approved**
   so that automation (when form submitted) checks this field and if "Yes" populates new field
   `Overalps with Previously Aprroved` (Yes/No)
   if "Yes" the `Status` set to "Denied"

   ✕ [run script determine if overlap present](#) **not evaluating correctly**

cap leave various leave types

in one sitting

when leave requested have function "Exceed -- Duration (in one sitting)" determine if type is "--" then check duration is more than a week and if so "Status" set to "Denied" by automation

in a year

- vacation - 7 working days - per event

DONE

- vacation - 7 working days - per year
- work from home - 15 working days - per year
- sick days - 5 working days - per event

DONE

- sick days - 5 working days - per year

Implementation

Adaptations to Existing Tables

Leave Detail

ALTERATIONS

Leave Request (form)

limit selection using [Active](#) status in [Leave Overview](#)

leave request

Leave Status

```
IF(
IS_BEFORE({Start Date}, TODAY()),
    \\ if leave start date before today
    IF(
    IS_AFTER({End Date}, TODAY()),
        \\ if leave end date is after today
        'leave in progress',
        \\ if leave end date is before today
        'leave taken'),
    \\ if leave start date after today
    'upcoming leave')
```

Reason (according to automation)

⠿ Sick Leave Duration Exceeded (per event)	✕
⠿ Sick Leave Allowance Exceeded (per year)	✕
⠿ Leave from Same Roles Overlap	✕
⠿ Vacation Leave Duration Exceeded (per event)	✕
⠿ Vacation Leave Allowance Exceeded (per year)	✕
⠿ Work from Home Allowance Exceeded (per year)	✕

NEW FIELDS FOR no two of the same role on leave at the same time

Role

lookup from Leave Overview

Link to Leave per Role

linked to Leave per Role
populated using automation Leave Request Form Submitted

Lapsed Dates

list of dates between 'Start Date' and 'End Date'
populated using automation Leave Request Form Submitted

Record ID

NEW FIELDS FOR for cap leave

Number of Working Days

```
WORKDAY_DIFF({Start Date},{End Date})
```

Exceed Sick Leave Allowance (per event)

```
IF(AND(Type="Sick Leave", {Number of Working Days Missed} > 5), "Yes", "No")
```

Exceed Vacation Leave Allowance (per event)

```
IF(AND(Type="Vacation
Leave", {Number of Working Days Missed} > 7), "Yes", "No")
```

Link to Sick Leave

updated with "Team Member" using automation [Sick Leave Request Form Submitted (per event)](#)

Exceed Sick Leave Allowance (per year)

Link to Work from Home

updated with "Team Member" using automation [Work from Home Leave Request Form Submitted](#)

Exceed Work from Home Allowance (per year)

INSTEAD OF LOOKUP FROM [Work from Home](#)
text field that is updated with automation [Work from Home Leave Request Form Submitted -](#)
(with same value as in [Work from Home > Exceed Work from Home Allowance (per year)](#) so
that result does not change over time

Link to Vacation Leave

updated with "Team Member" using automation [Vacation Leave Request Form Submitted (per event)](#)

Exceed Vacation Leave Allowance (per year)

Leave Overview

NEW FIELD

Active at Company

tick box to indicate who is still at company
used to limit selection of dropdown in [Leave Detail](#) [Leave Request (form)](#) via view `ACTIVE MEMBERS`

NEW FIELDS FOR [no two of the same role on leave at the same time](#)

Role

New Table(s)

Sick Leave

Link to Leave Overview

used for uniformity - to ensure that when automation updated field Link to Sick Leave can be updated with "Team Member" (ie. "Link to Leave Overview")

Link to Leave Detail

Record ID (from Leave Detail)

lookup from Leave Detail that is used in automation Cap Leave Request Form Submitted

Approved Sick Leave (for this year)

roll up of Number of Working Days where "Status" is "Approved"

Applied Sick Leave (for this year)

roll up of Number of Working Days where "Status" is "Applied" or "Pending" (limitation: operated under assumption that only newest entry appears here since should be dealt with and then status changed as they come in)

Exceed Sick Leave Allowance (per year)

```
IF({Approved Vacation Leave (for this year)} + {Applied Vacation Leave (for th
is year)}>7, "Yes", "No")
```

Work from Home

Link to Leave Overview

used for uniformity - to ensure that when automation updated field Link to Sick Leave can be updated with "Team Member" (ie. "Link to Leave Overview")

Link to Leave Detail

Record ID (from Leave Detail)

lookup from Leave Detail that is used in automation Cap Leave Request Form Submitted

Approved Work from Home (for this year)

roll up of Number of Working Days where "Status" is "Approved"

Applied Work from Home (for this year)

roll up of [Number of Working Days](#) where "Status" is "Applied" or "Pending" (limitation: operated under assumption that only newest entry appears here since should be dealt with and then status changed as they come in)

Exceed Work from Home Allowance (per year)

```
IF({Approved Work from Home (for this year)} + {Applied Work from Home (for this year)}>15, "Yes", "No")
```

Vacation Leave

Link to Leave Overview

used for uniformity - to ensure that when automation updated field [Link to Sick Leave](#) can be updated with "Team Member" (ie. "Link to Leave Overview")

Link to Leave Detail

Record ID (from Leave Detail)

lookup from [Leave Detail](#) that is used in automation [Cap Leave Request Form Submitted](#)

Approved Vacation Leave (for this year)

roll up of [Number of Working Days](#) where "Status" is "Approved"

Applied Vacation Leave (for this year)

roll up of [Number of Working Days](#) where "Status" is "Applied" or "Pending" (limitation: operated under assumption that only newest entry appears here since should be dealt with and then status changed as they come in)

Exceed Vacation Leave Allowance (per year)

```
IF({Approved Sick Leave (for this year)}+ {Applied Sick Leave (for this year)}
>15, "Yes", "No")
```

Leave per Role

```
Principal Architect and Founder
Associate Architect
Senior Architect
Architect
Technical Architect
```

```
Senior Interior Designer
Interior Design Architect
Landscape Architect
Visual Architect
Studio Curator
```

Link to Leave Detail

linked to [Leave Detail](#) as `Leave Detail`

(Approved) Lapsed Dates

roll up of unique values in `Lapsed Dates` WITH CONDITION `Status` Approved

```
UNIQUEARRAY(values)
```

this way will not check if overlap is present for leave that is still in approval process , has been denied or cancelled

(Applied) Dates Lapsed

roll up of unique values in `Lapsed Dates` WITH CONDITION `Status` Applied or Pending

Overlapping Dates

evaluates whether or not overlap

```
IF(

  AND({(Applied) Lapsed Dates}, {(Approved) Lapsed Dates}),

    IF(

      FIND(

        ARRAYJOIN({(Applied) Lapsed Dates}, ","),

        ARRAYJOIN({(Approved) Lapsed Dates}, ",")

      ),

      "Yes",

      "No"

    ),

    BLANK()

)
```

Leave Detail Record ID

lookup of Record ID from Leave Detail
required for automation Leave Request Form Submitted

New Automation(s)

Restart

at end of each year
Sick Leave
Vacation Leave
Work from Home
wiped clean

for no two of the same role on leave at the same time

Role : Leave Request Form Submitted

trigger: submit form

form "Leave Request" submitted from Leave Detail

run script: determine dates between start and end date


```
// Get all input values in a single call
const config = input.config();
const startDate = config.Start;
const endDate = config.End;

// Convert input strings to Date objects
const start = new Date(startDate);
const end = new Date(endDate);

// Validate dates
if (isNaN(start) || isNaN(end)) {
  throw new Error("Invalid date format. Please use YYYY-MM-DD format.");
}

// Ensure start date is before end date
```

```
if (start > end) {
  throw new Error("Start date must be before end date.");
}

const dates = [];
const currentDate = new Date(start);

// Loop through dates and add to array
while (currentDate <= end) {
  // Format date as YYYY-MM-DD for Airtable compatibility
  const formattedDate = currentDate.toISOString().split('T')[0];
  dates.push(formattedDate);
  currentDate.setDate(currentDate.getDate() + 1);
}

// Set the result as output for Airtable automation
output.set("dates", dates);
```

update said record: dates and record link

Lapsed Dates
with results of run script determine dates between start and end date
Link to Leave per Role
with Role lookup (such that new entry linked to Leave per Role table)

find records

use Record ID to find record (ie. Role) in Leave per Role that is linked to given record (by update said record dates and record link)
NOTE: expect return only **one** entry from Leave per Role

run script: determine if overlap present

Inputs ⌄

These let you use values from previous automation triggers and actions. Use in your script with `input.config()`.

ⓘ Learn more

Name 🗑

> AppliedDates

Value

> ⊛ (Applied) Lapsed Dates ⌄   ⊞

Name 🗑

> ApprovedDates

Value

> ⊛ (Approved) Lapsed Dates ⌄   ⊞

```javascript
// Get all input values in a single call

const config = input.config();

const appliedDates = config.AppliedDates;

const approvedDates = config.ApprovedDates;



// Check if any date in appliedDates matches any date in approvedDates

const matchFound = appliedDates.some(date => approvedDates.includes(date));



// Set the result as output for Airtable automation

output.set("match", matchFound ? "Yes" : "No");
```

update found record

[Overlapping Dates](#)

with result of [script determine if overlap present](#)

for [cap leave](#)

Sick : Leave Request Form Submitted

trigger: submit form

check conditions

if "Type" is "Sick Leave"
if [Exceed Sick Leave Allowance (per event)](#) is "Yes"

update record

then "Status" set to "Denied"
and [Reason (according to automation)](#) to "Sick Leave Duration Exceeded (per event)"

check conditions

if "Type" is "Sick Leave"

update record

[Link to Sick Leave](#) updated with "Team Member"

Vacation : Leave Request Form Submitted

trigger: submit form

check conditions

if "Type" is "Vacation Leave"
if [Exceed Vacation Leave Allowance (per event)](#) is "Yes"

update record

then "Status" set to "Denied"
and [Reason (according to automation)](#) to "Vacation Leave Duration Exceeded (per event)"

check conditions

if "Type" is "Vacation Leave"

update record

[Link to Vacation Leave](#) updated with "Team Member"

Work from Home : Leave Request Form Submitted

check conditions

if "Type" is "Work from Home"

update record

[Link to Work from Home](#) updated with "Team Member"

Cap : Leave Request Form Submitted (PART 1)

trigger: submit form

check condition

repeat below for each "type"

find record

in [Work from Home](#) OR [Sick Leave](#) OR [Vacation Leave](#) that is associated with this new entry (using [Record ID](#)) depending on "Type"

update record

in [Leave Detail > Exceed Work from Home Allowance (per year)](#) (just now submitted) with value from [Work from Home > Exceed Work from Home Allowance (per year)](#) OR [Leave Detail > Exceed Sick Leave Allowance (per year)](#) with value from [Sick Leave > Exceed Sick Leave Allowance (per year)](#) OR [Leave Detail > Exceed Vacation Leave Allowance (per year)](#) with value form [Vacation Leave > Exceed Vacation Leave Allowance (per year)](#) depending on "Type"

Cap : Leave Request Form Submitted (PART 1)

trigger: fields updated

[Leave Detail > Exceed Work from Home Allowance (per year)](#)
[Leave Detail > Exceed Sick Leave Allowance (per year)](#)
[Leave Detail > Exceed Vacation Leave Allowance (per year)](#)

check conditions

if any are "Yes" then "Status" set to "Denied" and [Reason (according to automation)](#) updated accordingly

Start Over at Year End

on last day of year linked fields [Link to Sick Leave](#), [Link to Work from Home](#) and [Link to Vacation Leave](#) in [Leave Detail](#) get wiped clean