
Software Portfolio: Procurement Request System

Introduction

Problem Statement

- A department needs a system to manage procurement requests.

Requirements

- Managers can view job status and assign tickets to procurement staff.
- Track KPI metrics of request resolution.
- Push-based notification to procurement staff for prompt response.
- Procurement requesters must submit complete data required by procurement staff.

Showcase: System Features

Guided Request Form (MS Forms)

Purchase request form (CBmE)

Please use this form to submit your request to the support team (Connie, Joseph, Ros). This form ensures the fastest response from us.

For CENTRES purchase, please contact Cheryl (cheryl.lee@nus.edu.sg) directly. For SHAPES purchase, please contact Joseph (jolie@nus.edu.sg) directly.

If you don't have the answer to any question, it's alright. Feel free to indicate what you know or just indicate that you are unsure.

Hi, Guangzhi, Joseph. When you submit this form, the owner will see your name and email address.

* Required

1. Please indicate your name (so that we can contact you for details) *

2. What's the total budget for your purchase? (SGD) *

3. Have you found a vendor/supplier? *

☒ Yes


☐ No

Push email notification and status tracking (MS Power Automate)

- Features:
Summary, timestamp, link to Procurement Request System

New CBmE Purchase Request - Monday, November 1, 2021 10:10 PM








This message was sent with Low importance



Liew Guangzhi, Joseph

Mon 11/1/2021 10:10 PM

To: Liew Guangzhi, Joseph



John Deer submitted a new purchase request on Monday, November 1, 2021 10:10 PM to buy:


106 Apples at \$1 each.

[Click here to update/view the request.](#)

[Reply](#) | [Forward](#)

Lucy (CBmE Admin) has updated a CBmE purchase request








This message was sent with Low importance



Liew Guangzhi, Joseph

Mon 11/1/2021 10:13 PM

To: Liew Guangzhi, Joseph




A purchase request has been updated by an admin. The latest status:

Requestor name: John Deer
Request submitted date: 01 Nov 2021 10:10 PM
Admin name: Lucy (CBmE Admin)
Admin 1st check-in date: 01 Nov 2021 11:00 PM
Status: PO created
Remarks: PO created and emailed to vendor.

[Click here to view / update the request.](#)

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Jobs System:

View and update job status (SharePoint Lists)

Microsoft Lists

Search this list

+ New

Edit

Edit in grid view

Share

Copy link

Comment

Delete

Automate

Edit all

Copy link

...

CBmE Procurement (LIVE)

Purchase request form (CBmE) LIST ☆

ID	Form submitte...	Requestor name	What's the tota...
1	10/28/2021 5:30 PM	Egg-Buyer	\$100
2	11/1/2021 9:53 PM	John Deer	\$101
3	11/1/2021 9:56 PM	John Deer	\$102
4	11/1/2021 9:58 PM	John Deer	\$103
✓ 5	11/1/2021 10:03 PM	John Deer	\$105
6	11/1/2021 10:10 PM	John Deer	\$106

Are you buying a product / service from local or overseas?

["Local"]

Please indicate: 1) what you'd like to buy 2) the quantity 3) your budget (or cost if you have the quote)

100 Apples at \$1 each

[OPTIONAL] If you have a quotation, please upload it here.

Enter value here

Please indicate the WBS you would like to use. If you are using multiple WBS, please also indicate how much you wish to apportion the cost. e.g. 80% cost goes to N-123-000-456-001 and 20% goes to...

Charge to WBS-001

Admin

Lucy (Admin)

Admin 1st check-in date

11/1/2021 11:00 PM

Status

Preparing for PO

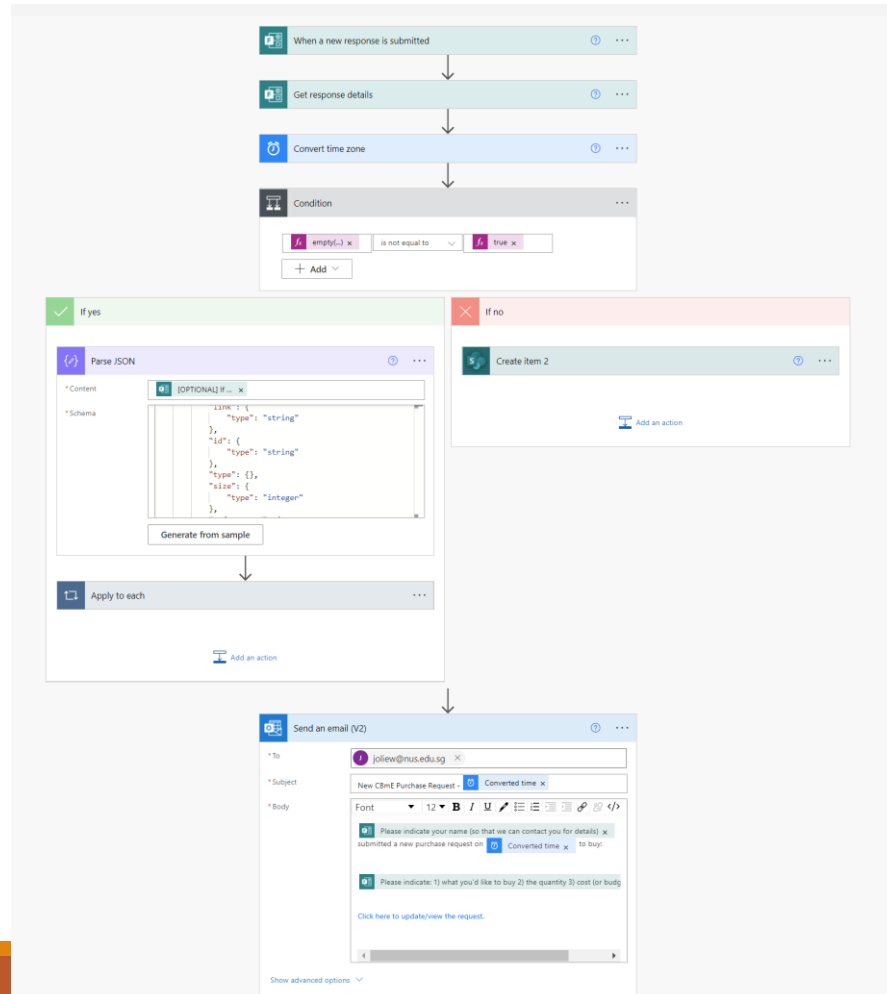
Remarks

Approval [ending some discussion with DO Buyer.



Data flow (Power Automate)

Job ticket automation



1. Requester submits data and attachment through MS Forms as JSON.
2. Submission time captured.
3. Automated logic to parse attached files from JSON into HTML hyperlink.
4. Automated logic to parse data into Jobs System.
5. Push email notification to procurement staff with auto-populated summary.

Data flow (Power Automate)

Status update automation

The screenshot displays a Microsoft Power Automate flow. The first step is a trigger named "When an item or a file is modified". It is configured with the following settings:

- Site Address:** CBmE Procurement (LIVE) - <https://nusu.sharepoint.com/sites/CBmEProcurementLIVE>
- List or Library Name:** Purchase request form (CBmE) LIST
- Folder:** Select a folder, or leave blank for the whole library

Below the trigger is a plus icon with a downward arrow, indicating the next step in the flow. The second step is an action named "Send an email (V2)". It is configured with the following settings:

- To:** joliew@nus.edu.sg
- Subject:** Admin x has updated a CBmE purchase request
- Body:** A purchase request has been updated by an admin. The latest status:
 - Requestor name:** Title x
 - Request submitted date:** Formatted Form submitted date x
 - Admin name:** Admin x
 - Admin 1st check-in date:** Formatted Admin 1st check-in date x
 - Status:** Status Value x
 - Remarks:** Remarks x

Click here to view / update the request.

- Logic auto-detects updates in Jobs System.
- Push email notification to procurement staff with auto-populated summary.
- Special feature:
Faster automation. Push notification within 30s.
 - No data parsing for MS Power Automate.
 - Faster processing for Power Automate server.
 - When user updates job in Jobs System, data is instantly parsed within Jobs System.
 - Parsed data ready to export for business analytics.

Scalable Design

Designed for scalability. Clean system in 3 steps.

