Concept Note : Email Fraud.

**Problem:**

Identify “man in the email attacks” which are carried out by creating email ids that are almost identical to recognizable emails. These exploit the assumed trust between the victim and the sender to impersonate someone involved in invoice payments and are difficult to spot by unaided human eye.

While Check an Invoice will flag any attempt by a fraudster to modify the bank details using a hacked or identical email id, it is important to identify the following fraud attempts to keep CAI customers safe.

* Attacker pretending to be a valid supplier requesting fund transfers for payments to an account owned by fraudsters.
* Attacker posing as the company CEO or other employees sends an email to request finance to transfer money to the account they control.

**Challenges:**

* Email id can only be read by the email reader as email text.
* Emails can easily be edited before forwarding
* There may be many email ids in a mail trail
* Fraudster may add the correct email id before forwarding the email to the buyer.

**Approach:**

1. Email reader will read the email text and identify all emails. “Using email id format after “From:” in the forwarded email text.
2. Email id used to submit the invoice will be used to identify the buyer on Check an Invoice.
3. Email ids similar to buyer’s email id ( same domain) will be identified.
4. All other (except step 3) email ids identified from the invoices or from forwarded emails will be shown to the buyer when he approves a new supplier.
5. The newly identified email ids will be grouped according to their domain names.
   * Email ids from buyer domains
   * Email ids from supplier domains
   * Other email ids (possibly similar to an employee or a supplier)
6. Buyer may unselect some of the email ids from the list and add others to “Safe contacts” (which replaces current contacts in the supplier profile).
7. When subsequent invoices are submitted, the emails found in the email can be compared to the emails in the “safe contacts” list.
8. Any new email id will be flagged as an exception alert.
9. While approving the invoices, buyer can add that new contact to his safe contacts list for that supplier.
10. Email ids not selected can be added to a “blacklist” which will make the system smarter and alert other customers also.