Merge Multiple Adobe forms into Single PDF and Send as Email Attachment

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CLASS lcl_merge_form_and_send_mail DEFINITION.
  PUBLIC SECTION.
    TYPES: tt_customerid TYPE TABLE OF s_customer WITH EMPTY KEY.
    METHODS: send_mail.
    METHODS: merge_forms IMPORTING it_customers TYPE tt_customerid.

  PRIVATE SECTION.
    DATA: mv_merged_pdf TYPE fpcontent.
    METHODS: get_form IMPORTING iv_customer_id TYPE s_customer
                      RETURNING VALUE(rv_pdf)  TYPE fpcontent.
    METHODS: get_customer_data IMPORTING iv_customer_id  TYPE s_customer
                               EXPORTING customer_detail TYPE scustom
                                         bookings        TYPE ty_bookings
                                         connections     TYPE ty_connections.
ENDCLASS.

CLASS lcl_merge_form_and_send_mail IMPLEMENTATION.
  METHOD get_customer_data.
    SELECT SINGLE FROM scustom
           FIELDS *
           WHERE id = @iv_customer_id
           INTO @customer_detail.
    SELECT FROM bookings
           FIELDS *
           WHERE customid = @iv_customer_id
           INTO TABLE @bookings.
    IF lines( bookings ) > 0.
      SELECT * FROM spfli INTO TABLE @connections
               FOR ALL ENTRIES IN @bookings
               WHERE carrid = @bookings-carrid
               AND   connid = @bookings-connid.
    ENDIF.
  ENDMETHOD.

  METHOD get_form.
    DATA(lv_form_name)    = CONV tdsfname( 'FP_TEST_03' ).
    DATA(lv_form_fm_name) = VALUE rs38l_fnam( ).
    DATA(ls_docparams)    = VALUE sfpdocparams( ).
    DATA(ls_outputparams) = VALUE sfpoutputparams( ).
    DATA(ls_formoutput)   = VALUE fpformoutput( ).

* Get data
    get_customer_data(
      EXPORTING
        iv_customer_id  = iv_customer_id
      IMPORTING
        customer_detail = DATA(customer)
        bookings        = DATA(bookings)
        connections     = DATA(connections) ).

* get name of the generated function module
    TRY.
        CALL FUNCTION 'FP_FUNCTION_MODULE_NAME'
          EXPORTING
            i_name     = lv_form_name
          IMPORTING
            e_funcname = lv_form_fm_name.
      CATCH cx_fp_api INTO DATA(lx_fp_api).
        MESSAGE ID lx_fp_api->msgid TYPE lx_fp_api->msgty
          NUMBER lx_fp_api->msgno
            WITH lx_fp_api->msgv1 lx_fp_api->msgv2
                 lx_fp_api->msgv3 lx_fp_api->msgv4.
        RETURN.
    ENDTRY.

* Set output parameters and open spool job
    ls_outputparams-nodialog = 'X'.   " no print preview
    ls_outputparams-getpdf = 'X'.    " request PDF
    CALL FUNCTION 'FP_JOB_OPEN'
      CHANGING
        ie_outputparams = ls_outputparams
      EXCEPTIONS
        cancel          = 1
        usage_error     = 2
        system_error    = 3
        internal_error  = 4
        OTHERS          = 5.
    IF sy-subrc <> 0.
      MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
              WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.
      RETURN.
    ENDIF.

* Now call the generated function module
    CALL FUNCTION lv_form_fm_name
      EXPORTING
        /1bcdwb/docparams  = ls_docparams
        customer           = customer
        bookings           = bookings
        connections        = connections
      IMPORTING
        /1bcdwb/formoutput = ls_formoutput
      EXCEPTIONS
        usage_error        = 1
        system_error       = 2
        internal_error     = 3
        OTHERS             = 4.
    IF sy-subrc <> 0.
      MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
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              WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.
      RETURN.
    ENDIF.

* Close spool job
    CALL FUNCTION 'FP_JOB_CLOSE'
      EXCEPTIONS
        usage_error    = 1
        system_error   = 2
        internal_error = 3
        OTHERS         = 4.
    IF sy-subrc <> 0.
      MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
              WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.
      RETURN.
    ENDIF.

    rv_pdf = ls_formoutput-pdf.
  ENDMETHOD.

  METHOD merge_forms.
    DATA(lo_pdf_merger) = cl_rspo_pdf_merger=>create_instance( ).
    LOOP AT it_customers ASSIGNING FIELD-SYMBOL(<customer_id>).
      lo_pdf_merger->add_document( get_form( <customer_id> ) ).
    ENDLOOP.
    TRY.
        mv_merged_pdf = lo_pdf_merger->merge_documents( ).
      CATCH cx_rspo_pdf_merger INTO DATA(lx_pdf).
    ENDTRY.
  ENDMETHOD.

  METHOD send_mail.
    TRY.
        DATA(lo_mail) = cl_bcs=>create_persistent( ).

        DATA(lo_sender_address) = cl_cam_address_bcs=>create_internet_address(
                                   i_address_string = CONV #( 'sender@gmail.com' ) ).
        lo_mail->set_sender( lo_sender_address ).

        DATA(recipient_address) = cl_cam_address_bcs=>create_internet_address(
                                   i_address_string = CONV #( 'receiver@gmail.com' ) ).
        lo_mail->add_recipient( i_recipient = recipient_address ).

        DATA(lo_document) = cl_document_bcs=>create_document(
                                i_type = 'htm'
                                i_subject = `Adobe Form Attachment`
                                i_text = VALUE #( ( CONV #( 'Form Attachment' ) ) )
                                i_sender = lo_sender_address ).

        DATA(lv_merged_pdf_size) = xstrlen( mv_merged_pdf ).
        lo_document->add_attachment(
                      i_attachment_type = 'PDF'
                      i_attachment_subject = 'Customer Form'
                      i_attachment_size = CONV #( lv_merged_pdf_size )
                      i_att_content_hex = cl_bcs_convert=>xstring_to_solix( mv_merged_p
df ) ).

        lo_mail->set_document( lo_document ).
        lo_mail->set_send_immediately( abap_true ).
        DATA(lv_send_success) = lo_mail->send( ).
        COMMIT WORK.

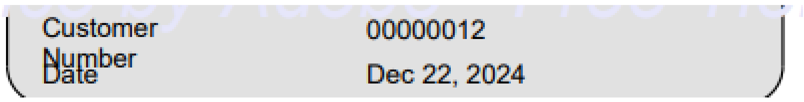
      CATCH cx_send_req_bcs cx_address_bcs cx_document_bcs INTO DATA(lx_mail).
        MESSAGE lx_mail TYPE 'E'.

    ENDTRY.
  ENDMETHOD.
ENDCLASS.

START-OF-SELECTION.
  DATA(lo_mail) = NEW lcl_merge_form_and_send_mail(  ).
  lo_mail->merge_forms( it_customers = VALUE #( ( CONV #( 12 ) )
                                                ( CONV #( 13 ) ) ) ).
  lo_mail->send_mail( ).
```

Result:

Page 1



Customer Number 00000012

Date Dec 22, 2024

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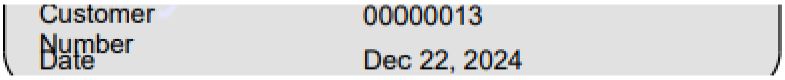

Customer Number 00000013

Date Dec 22, 2024