

BEGIN Smart Academic Scheduler

INITIALIZE schedule\_data as empty list

FUNCTION update\_time()

SET time\_label text to current date and time

CALL update\_time every 1000 milliseconds

FUNCTION clear\_main\_area()

FOR each widget in main\_area

DESTROY widget

FUNCTION format\_date(event)

SET text to the content of the event widget

IF length of text is 2 or 5 THEN

INSERT "/" at the end of text

IF length of text is 10 THEN

TRY

SET day\_entry to normal state

CLEAR day\_entry

INSERT day of the week for the given date into day\_entry

SET day\_entry to readonly state

EXCEPT

DO NOTHING

FUNCTION format\_time(event, entry)

SET text to the content of entry

IF text is a digit THEN

CLEAR entry

INSERT text padded with zeros to 2 digits followed by ":00"

FUNCTION add\_schedule()

CALL clear\_main\_area()

CALL create\_schedule\_form()

FUNCTION create\_schedule\_form(data=None, index=None)

DEFINE labels and keys for schedule fields

INITIALIZE entries as empty list

FOR each label in labels

CREATE a Label with the label text

CREATE an Entry for user input

ADD Entry to entries list

SET date\_entry to bind format\_date function

IF data is provided THEN

FOR each entry and key

SET entry to normal state

INSERT data into entry

IF key is "day" THEN

SET entry to readonly state

FUNCTION save()

CREATE new\_data dictionary from entries

IF index is not None THEN

UPDATE schedule\_data at index with new\_data

SHOW message "Schedule updated successfully."

ELSE

APPEND new\_data to schedule\_data

SHOW message "Schedule added successfully."

CALL update\_schedule()

CREATE a Save button that calls save function

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FUNCTION update_schedule()
    CALL clear_main_area()
    IF schedule_data is empty THEN
        SHOW message "No schedules available."
        RETURN
    FOR each schedule in schedule_data
        CREATE a frame for the schedule
        DISPLAY schedule information
        CREATE Edit and Delete buttons for each schedule

FUNCTION add_schedule_for_edit(data, index)
    CALL clear_main_area()
    CALL create_schedule_form(data, index)

FUNCTION delete_schedule(index)
    IF user confirms deletion THEN
        REMOVE schedule from schedule_data
        CALL update_schedule()

FUNCTION view_schedule()
    CALL clear_main_area()
    IF schedule_data is empty THEN
        SHOW message "No schedules available."
        RETURN
    DISPLAY "Scheduled Entries" header
    FOR each schedule in schedule_data
        CREATE a frame for the schedule
        DISPLAY schedule information
        CREATE Edit and Delete buttons for each schedule
    CREATE an EXPORT button that calls export_schedule()

FUNCTION export_schedule()
    IF schedule_data is empty THEN
        SHOW warning "There are no schedules to export."
        RETURN
    PROMPT user for file path to save CSV
    IF file path is not provided THEN RETURN
    TRY
        OPEN file at file path for writing
        WRITE header row to CSV
        WRITE each schedule data to CSV
        SHOW message "Schedule exported successfully."
    EXCEPT
        SHOW error message

FUNCTION exit_app()
    IF user confirms exit THEN
        CLOSE application

--- UI Setup ---
INITIALIZE main application window
SET window title and size
CREATE header frame and label
CALL update_time()

CREATE body frame and button frame
CREATE main area for displaying schedules

FOR each button with text and command
    CREATE button and add to button frame

DISPLAY welcome message in main area

START main application loop

END Smart Academic Scheduler

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