$$\text{MODULE } CalendarMark2$$

EXTENDS *Integers*
VARIABLES *choice*, *pc*, *persona*

$Init \triangleq \land (choice = 0)$
$\qquad\quad \land (pc = \text{``Begin''})$
$\qquad\quad \land (persona = 0)$

$TypeOk \triangleq \land (choice' \in 0 \,.\, .\, 5)$
$\qquad\qquad\quad \land (persona' \in 0 \,.\, .\, 2)$

$ViewCalendar \triangleq$ IF $choice = 0 \land (persona = 0 \lor persona = 1)$
$\qquad\qquad\qquad\qquad$ THEN
$\qquad\qquad\qquad\qquad\quad pc' = \text{``Viewing Calendar''}$
$\qquad\qquad\qquad\qquad\quad \land$ UNCHANGED $\langle choice, persona \rangle$
$\qquad\qquad\qquad\qquad$ ELSE
$\qquad\qquad\qquad\qquad\quad pc' = \text{``log in failed try again or Need to register''}$
$\qquad\qquad\qquad\qquad\quad \land$ UNCHANGED $\langle choice, persona \rangle$

$AcceptDeny \triangleq$ IF $choice = 1 \land (persona = 0 \lor persona = 1)$
$\qquad\qquad\qquad\qquad$ THEN
$\qquad\qquad\qquad\qquad\quad pc' = \text{``Accepted/Denied request - Sending notification''}$
$\qquad\qquad\qquad\qquad\quad \land$ UNCHANGED $\langle choice, persona \rangle$
$\qquad\qquad\qquad\qquad$ ELSE
$\qquad\qquad\qquad\qquad\quad pc' = \text{``log in failed try again or Need to register''}$
$\qquad\qquad\qquad\qquad\quad \land$ UNCHANGED $\langle choice, persona \rangle$

$CreateSchedule \triangleq$ IF $choice = 2 \land persona = 0$
$\qquad\qquad\qquad\qquad$ THEN
$\qquad\qquad\qquad\qquad\quad pc' = \text{``Schedule changes made - Sending notification''}$
$\qquad\qquad\qquad\qquad\quad \land$ UNCHANGED $\langle choice, persona \rangle$
$\qquad\qquad\qquad\qquad$ ELSE
$\qquad\qquad\qquad\qquad\quad pc' = \text{`` You do not have access right to this feature or Need to register''}$
$\qquad\qquad\qquad\qquad\quad \land$ UNCHANGED $\langle choice, persona \rangle$

$Request \triangleq$ IF $choice = 3 \land (persona = 0 \lor persona = 1)$
$\qquad\qquad\qquad\qquad$ THEN
$\qquad\qquad\qquad\qquad\quad pc' = \text{``You have sucessfully made a request - Sending notification''}$
$\qquad\qquad\qquad\qquad\quad \land$ UNCHANGED $\langle choice, persona \rangle$
$\qquad\qquad\qquad\qquad$ ELSE
$\qquad\qquad\qquad\qquad\quad pc' = \text{``log in failed try again or Need to register''}$
$\qquad\qquad\qquad\qquad\quad \land$ UNCHANGED $\langle choice, persona \rangle$

$Register \triangleq$ IF $choice = 4 \land persona = 3$
$\qquad\qquad\qquad\qquad$ THEN
$\qquad\qquad\qquad\qquad\quad pc' = \text{``You have registered successfully - Sending notification''}$
$\qquad\qquad\qquad\qquad\quad \land$ UNCHANGED $\langle choice, persona \rangle$
$\qquad\qquad\qquad\qquad$ ELSE

$$pc' = \text{"This user already exists - Try again"}$$
$$\wedge \text{UNCHANGED } \langle choice, persona \rangle$$

$RescheduleSchedule \;\triangleq\; \text{IF } choice = 2 \wedge persona = 0$
$$\text{THEN}$$
$$pc' = \text{"Schedule changes made - Sending notification"}$$
$$\wedge \text{UNCHANGED } \langle choice, persona \rangle$$
$$\text{ELSE}$$
$$pc' = \text{" You do not have access right to this feature or Need to register"}$$
$$\wedge \text{UNCHANGED } \langle choice, persona \rangle$$

$Next \;\triangleq\; \vee\; ViewCalendar$
$$\vee\; AcceptDeny$$
$$\vee\; CreateSchedule$$
$$\vee\; Request$$
$$\vee\; Register$$
$$\vee\; RescheduleSchedule$$

\ * Modification History
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