

$[CELEBRITY]$
 $ANS ::= YES \mid NO$

$TrackingSystem$ $observed : \mathbb{F} CELEBRITY$

$TrackingSystemInit$ $TrackingSystem'$
$observed' = \emptyset$

$NewCeleb$ $\Delta TrackingSystem$ $in? : CELEBRITY$
$observed' = observed \cup \{in?\}$

$DeleteCeleb$ $\Delta TrackingSystem$ $in? : CELEBRITY$
$observed' = observed \setminus \{in?\}$

$Query$ $\exists TrackingSystem$ $query? : CELEBRITY$ $ans! : ANS$
$query? \in observed \Rightarrow ans! = YES$ $query? \notin observed \Rightarrow ans! = NO$