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SUD Escaper

Observer

Application of GoF Design Pattern

Where does it fit our SUD

Every time an user changes his location some actions must be taken. For example previously computed escape for him is not anymore valid, so the instance that is in charge of computing routes for the user is notified and runs its computation to provide up to date route. Also I can think of more complicated scenario, where the location change also notifies server that is storing location of every user and the server then modifies the particular location in its database.

Observer Design Pattern is used for

Realisation of one-to-many dependencies between objects without making those objects tightly coupled.
Automatical notification
observer objects when state of observed property in an observed subject is changed.
An observed object notifies one or more observers at once.
Easy addition of observing objects.
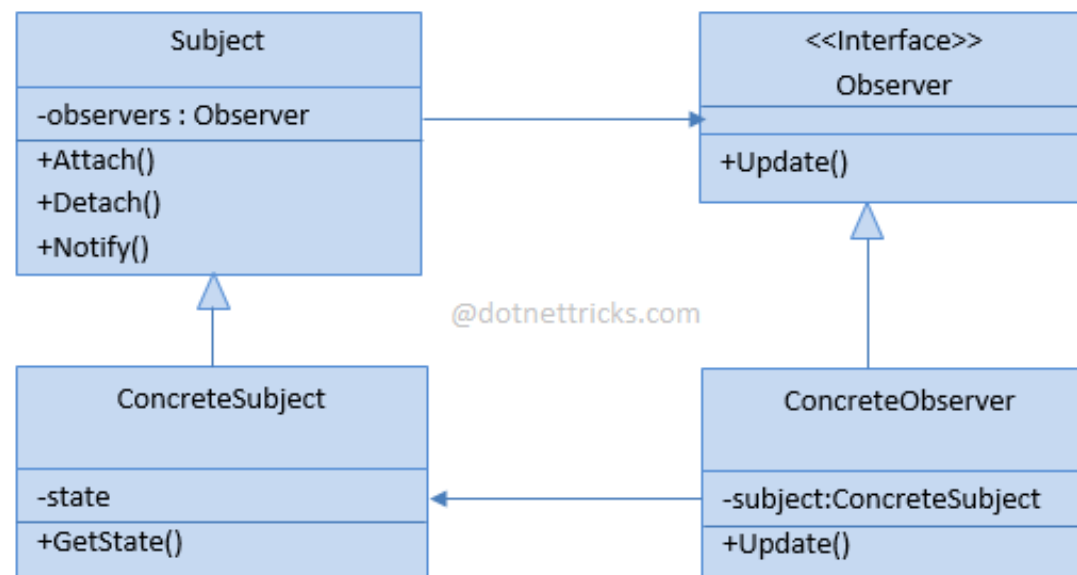
Observer Pattern

Integrated Solution

EscapeRoute is responsible for computing route for an user, so when the user modifies its location, EscapeRoute instance is notified, gets location of the user and updates most suitable escape path for him.