

User Pattern:

$$1) AP_{USER}(A_i) \rightarrow A'_i : (A_i.name, A_i.objs \cup \{o_{USER}\}, \dots, A_i.mtds)$$

$$where: o_{USER} = (User, \{k_{id} = (id, String)\}, \{m_{GetID}, m_{SetID}\})$$

$$2) AP_{USER}(A_i, \%) \rightarrow A'_i : (A_i.name, A_i.objs', A_i.mtds)$$

$$where: A_i.objs' = (A_i.objs - \%) \cup (\%')$$

$$where: \%' = (\%o.name, \%o.props \cup \{k_{ID} = (id, String)\}, \%o.mtds \cup \{m_{GetID}, m_{SetID}\})$$