Semantic Bug Fix Patterns across Syntactic in apollo IF AS MC MO SOOD AT LV NV LIBSYN TAY SW CFDOC PPO -SDI -CSA -PAE - 7 SAR - 7 EA -FSH -MII - 15 SPE -CPR -RDPI -ADMI - 4 SPO -DFC - 9 LA -- 20 SME - 11 IC -RMI - 3 CC -EHR - 8 CEM -SS -UIA -DU - 4 BCE - 7 DTI - 6 DUC -