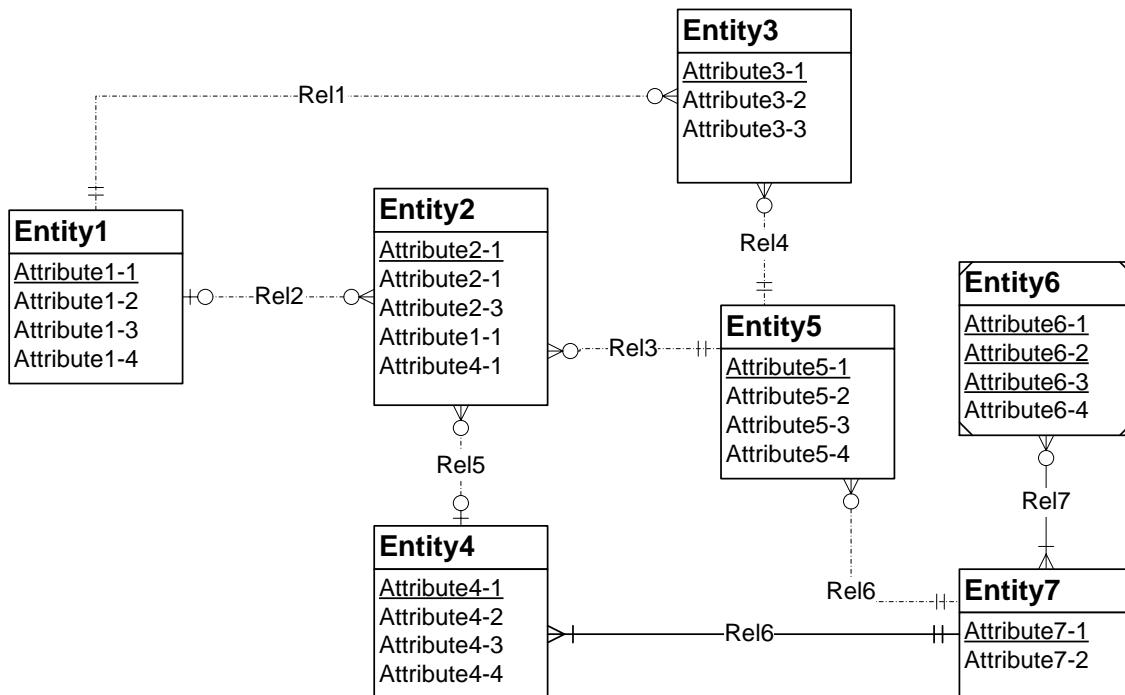Q4: For each consistency error in Figure 1, you should identify the consistency rule violated and suggest possible resolutions of the error.

Entity3
Attribute3-1
Attribute3-2
Attribute3-3

Entity1
Attribute1-1
Attribute1-2
Attribute1-3
Attribute1-4

Entity2
Attribute2-1
Attribute2-1
Attribute2-3
Attribute1-1
Attribute4-1

Entity6
Attribute6-1
Attribute6-2
Attribute6-3
Attribute6-4

Entity5
Attribute5-1
Attribute5-2
Attribute5-3
Attribute5-4

Entity4
Attribute4-1
Attribute4-2
Attribute4-3
Attribute4-4

Entity7
Attribute7-1
Attribute7-2

Rel1
Rel2
Rel3
Rel4
Rel5
Rel6
Rel6
Rel7

Ans:

E1-R2-E1: Redundant FK Rule Violation
Can be solved by removing the redundant foreign key or renaming if it is not a foreign key.

E5-R4-E3: Identifying Relationship Rule Violation
Can be solved by resolved by adding one or more weak entities or making the relationship non-identifying.

E6: Weak Entity Type Rule Violation
Can be resolved by adding one or more identifying relationships or changing the weak entity type into a regular entity type.

E6-R7-E7: Identification Cardinality Rule Violation
Can be resolved by changing the weak entity's cardinality to (1,1).