A Report on Minus Operator

I have implemented Minus Relational Algebra operator. It is a binary operator i.e. it acts on two operands (relations).

It is used as 'LHS Relation - RHS Relation' (R - S). It returns the tuples which are present in relation R only and excludes the tuples of R which are also present in relation S. For minus operator to be effective, both the relations must be compatible with each other i.e. both the relations must have same number of attributes and all of the attributes must agree upon their respective domains.

Algorithm:

minus( r1, r2 )

S = EMPTY

IF r1 is compatible with r2 then

FOR each t of r1 do

IF t DOES NOT EXIST in r2 THEN

Add t in S

END IF

END FOR

END IF

RETURN S

For this only minus method of the Table class was needed to be modified. I have tested all the ;possible scenarios for this operator such as When R is EMPTY OR when S is EMPTY OR when both of the R and S do not have any tuples common to them etc.