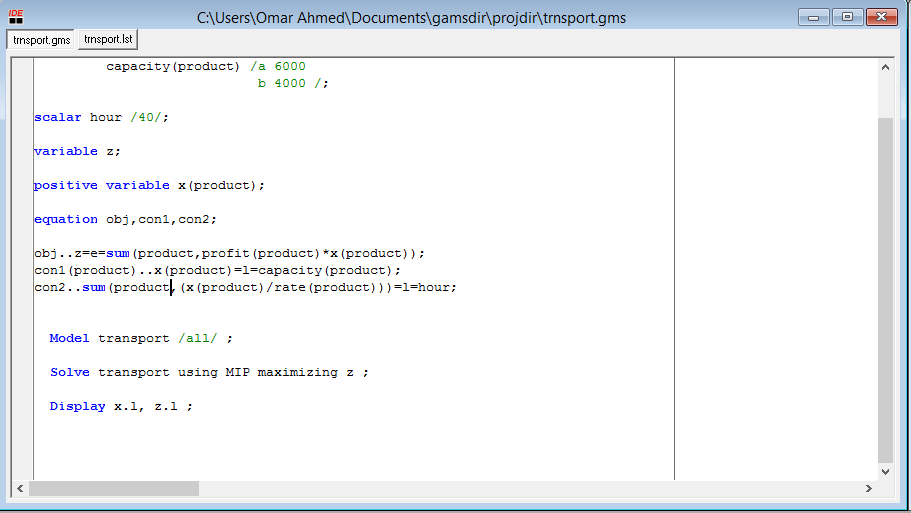
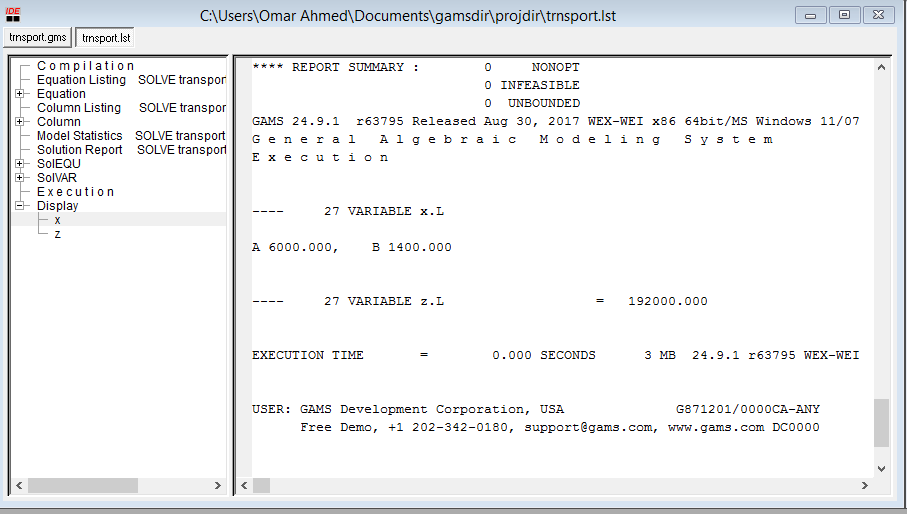
**Name :OMAR AHMED OMAR**

**ID :20140180**

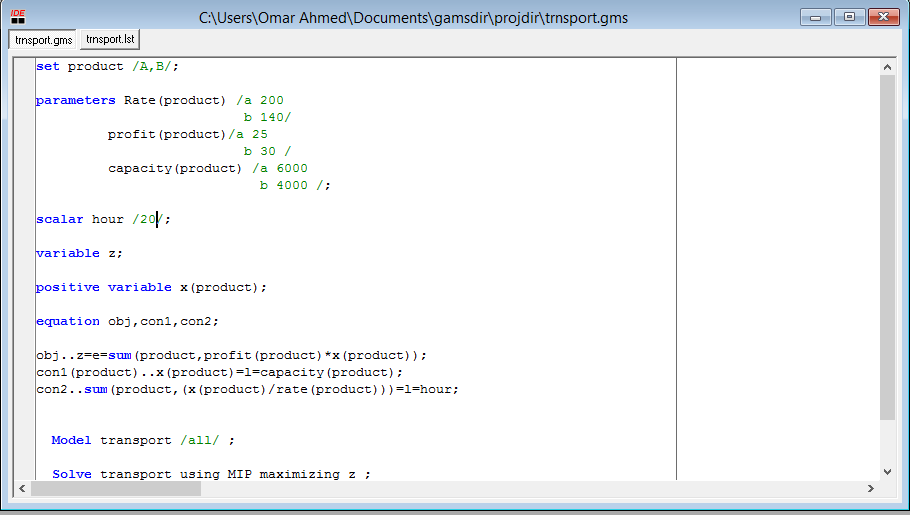
**Group: 3 IS\_DS**

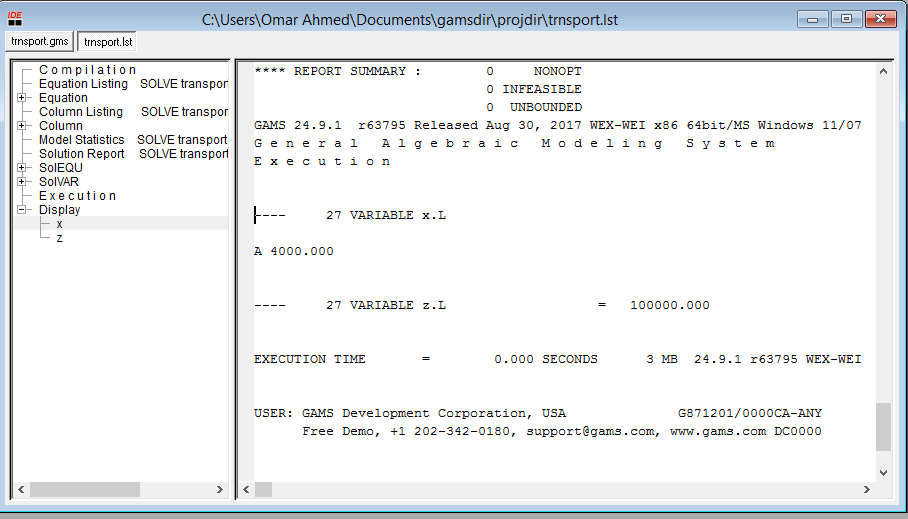
1. **A manufacturing Plant produces two types of products (Prod-A and Prod-B).**

****

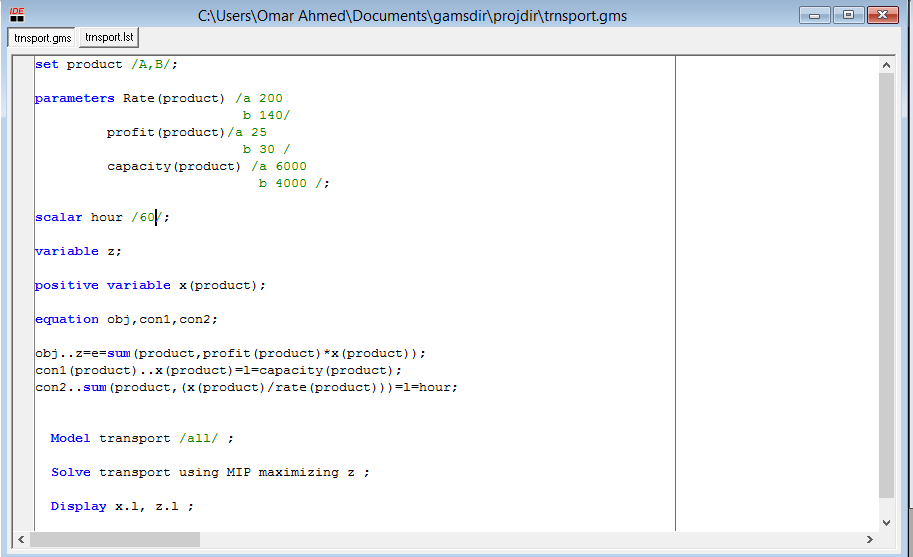
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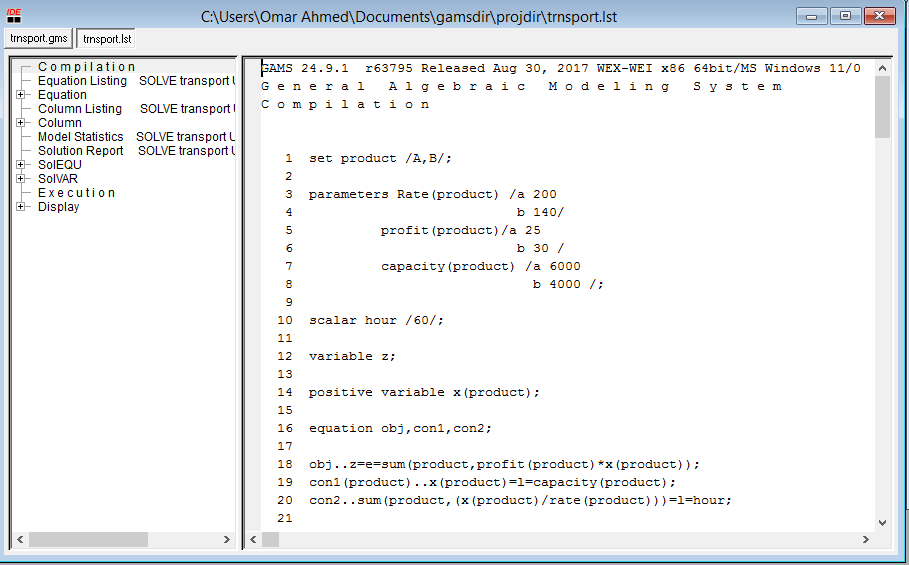
\*Decrease Hours by 50%:





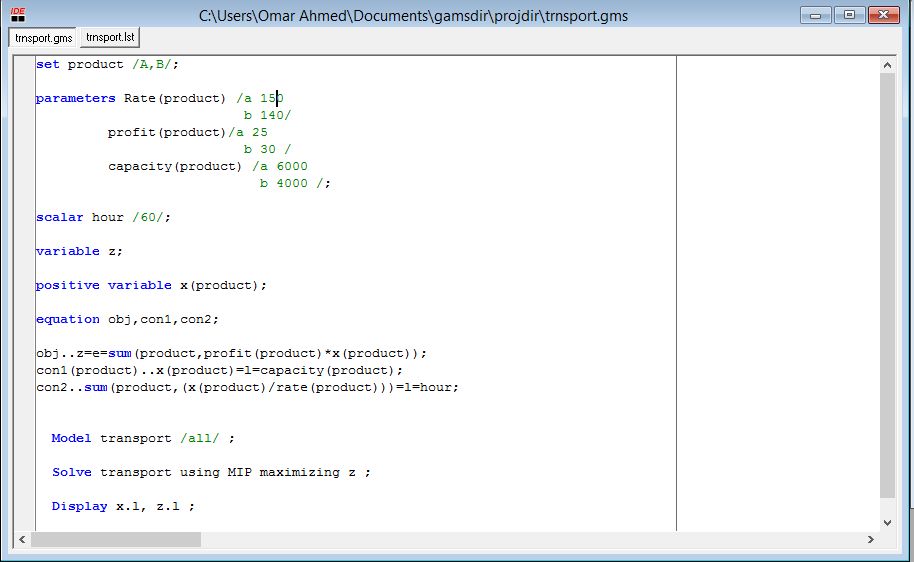
\*Increase Hours by 50%:

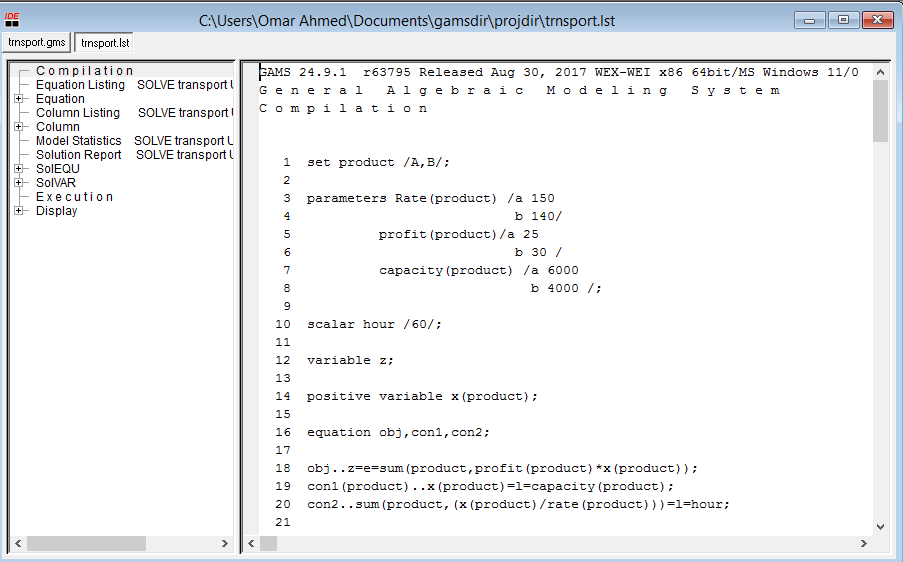




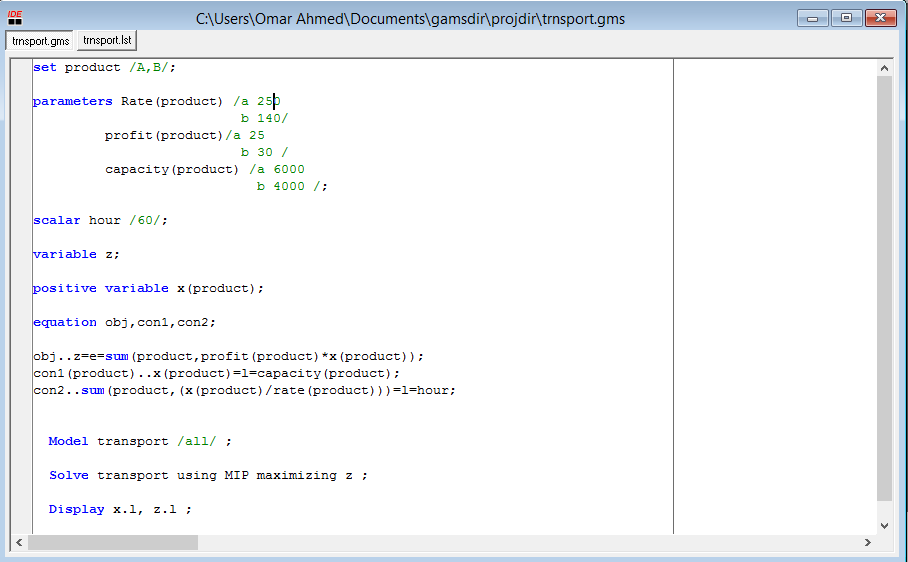
The suggestion is to increase hours.

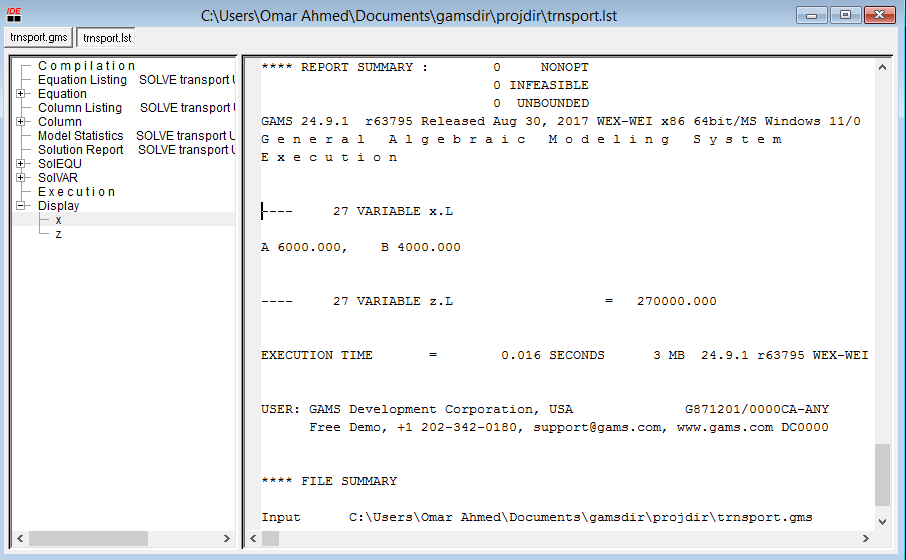
\*decrease Product of A by 25%:





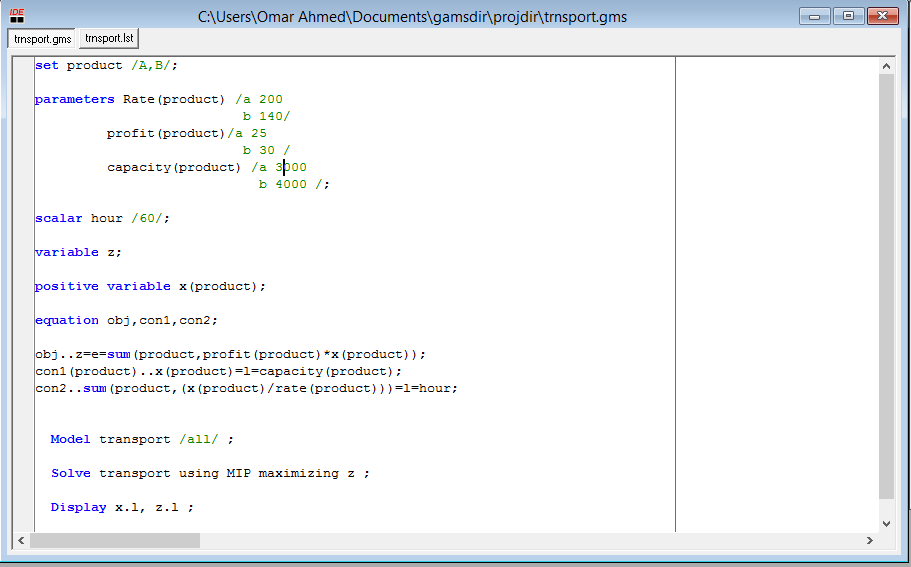
\*Increase Product of A by 25%:

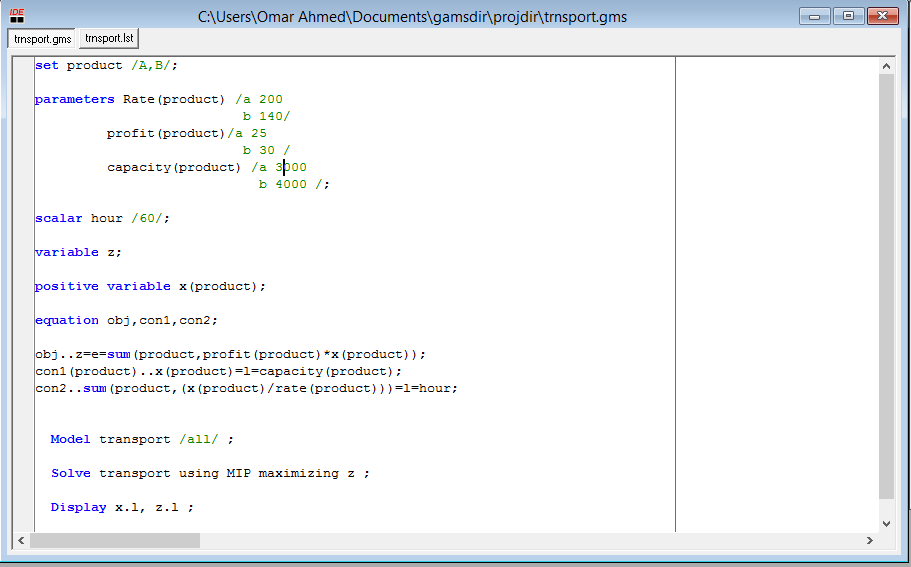




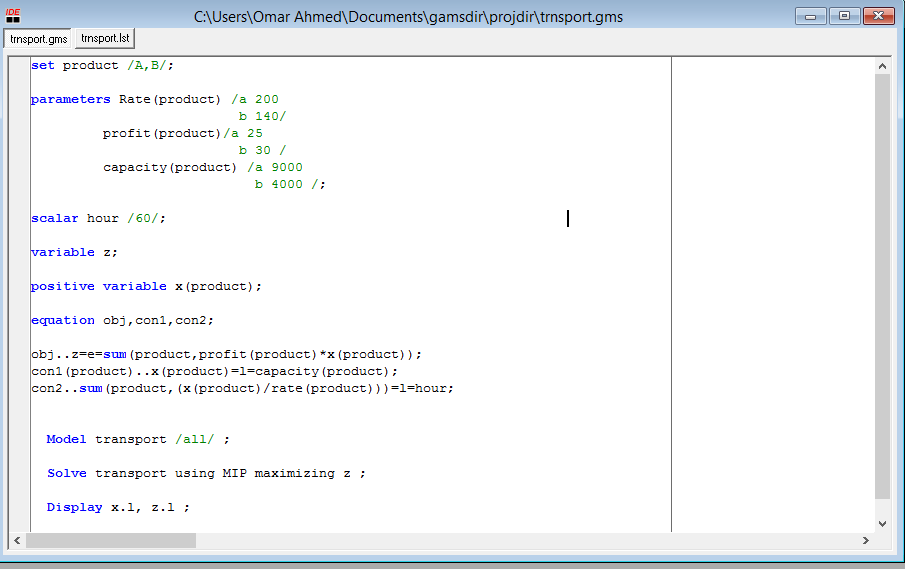
The suggestion is to increase the rate of the product A.

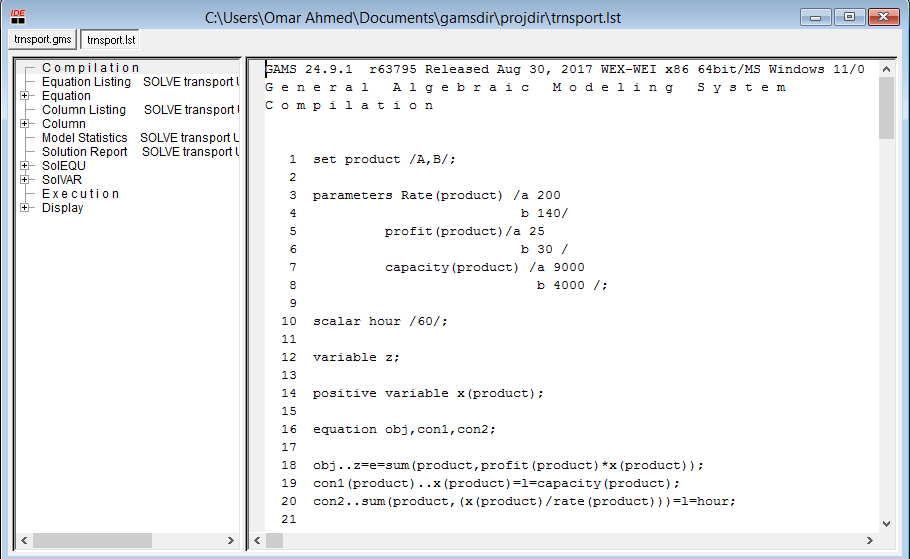
\*Decrease Product of Production Capacity of A by 50%:



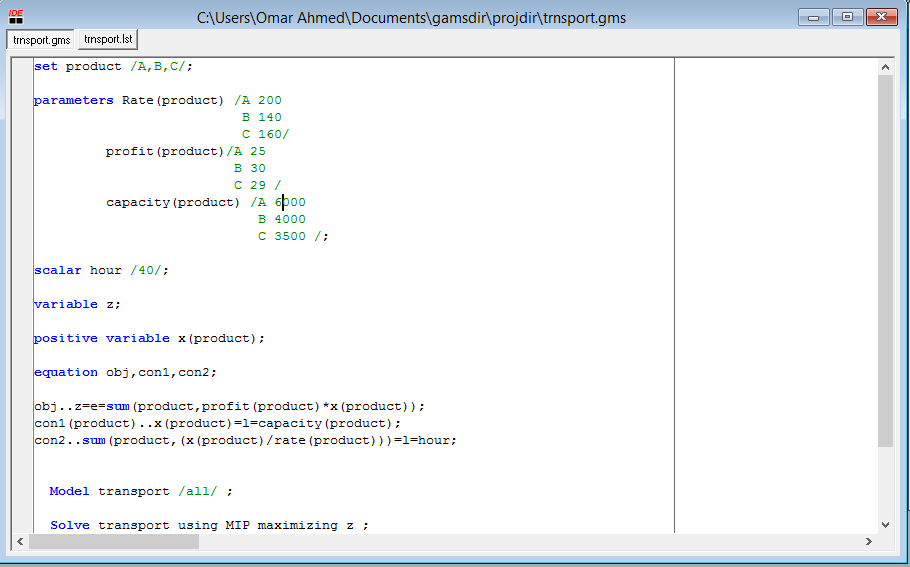


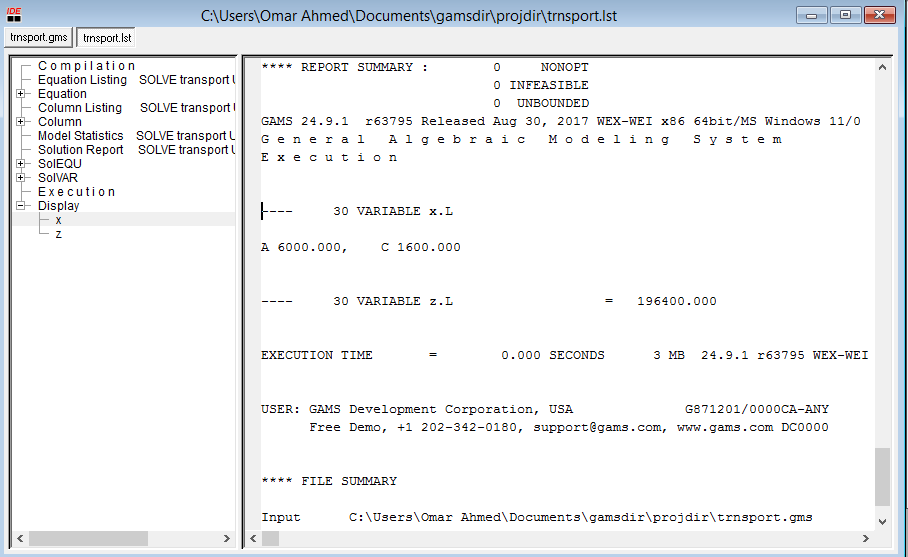
\*Increase Product of Production Capacity of A by 50%:



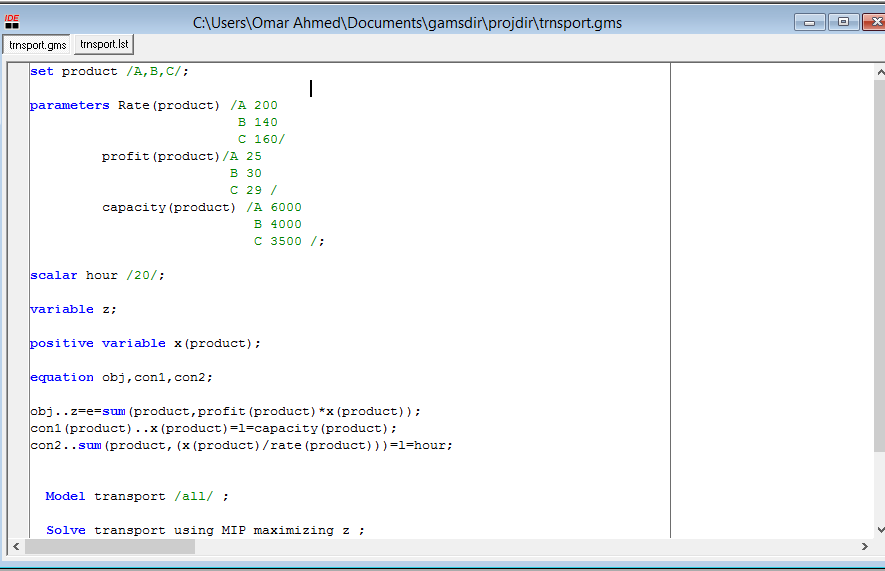


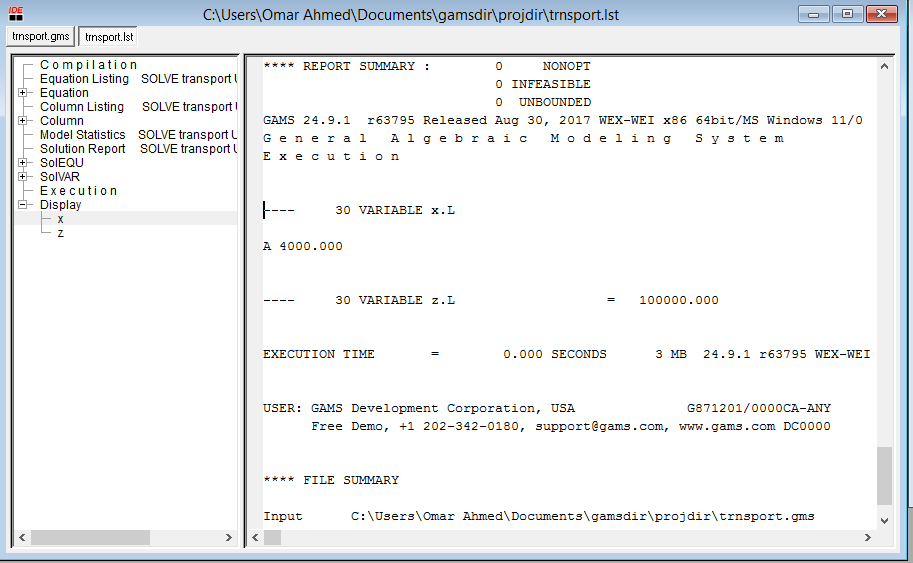
**B-Assuming that the manager of the manufacturing plant decided to add one product to the production mix (Prod-C).**

****

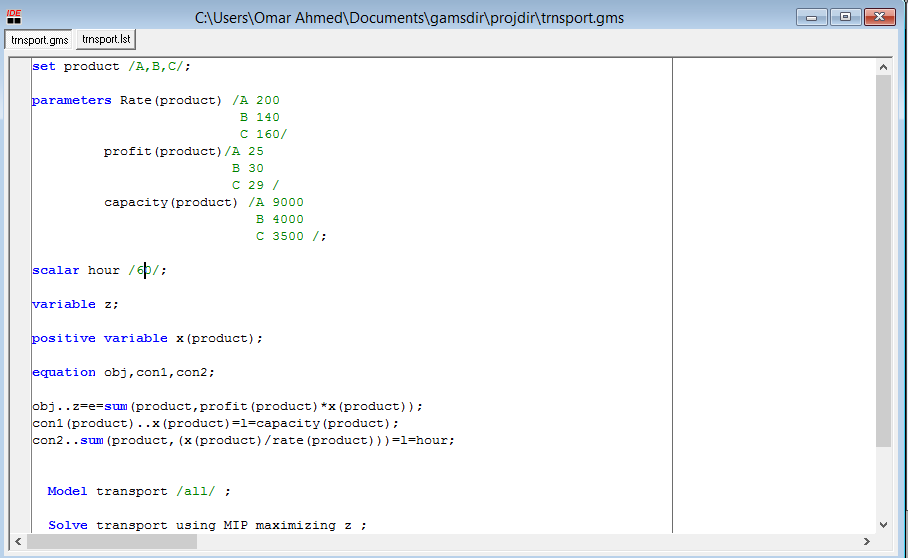
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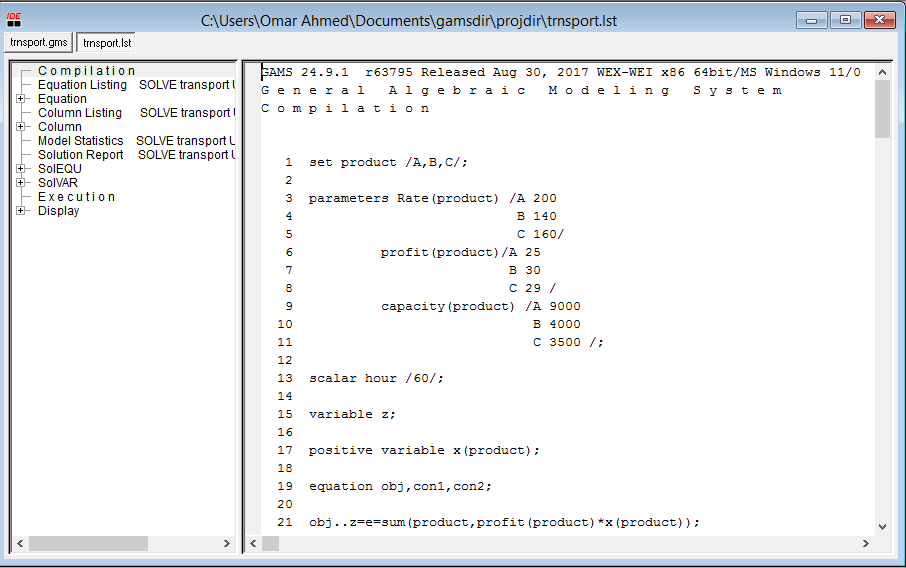
\*Decrease Hours by 50% (PartB):





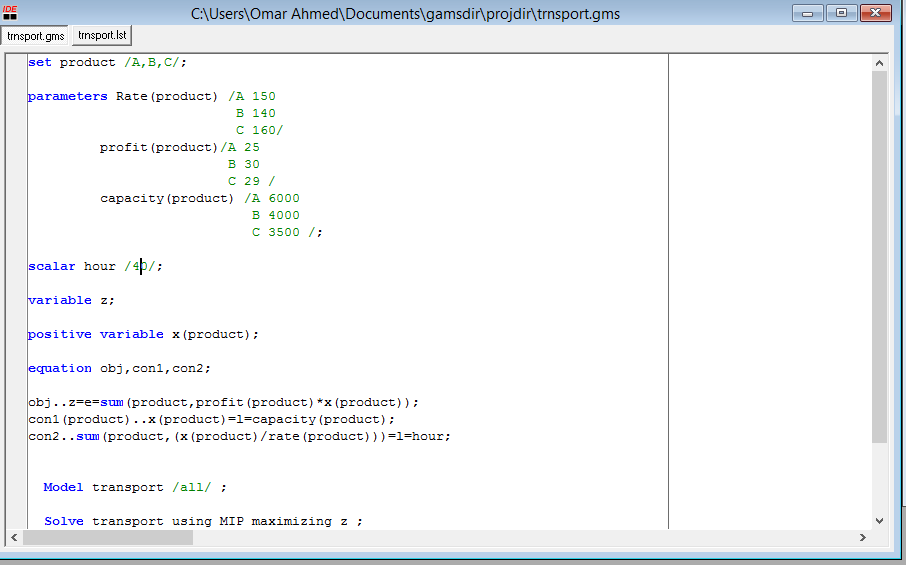
\*Inecrease Hours by 50% (PartB):

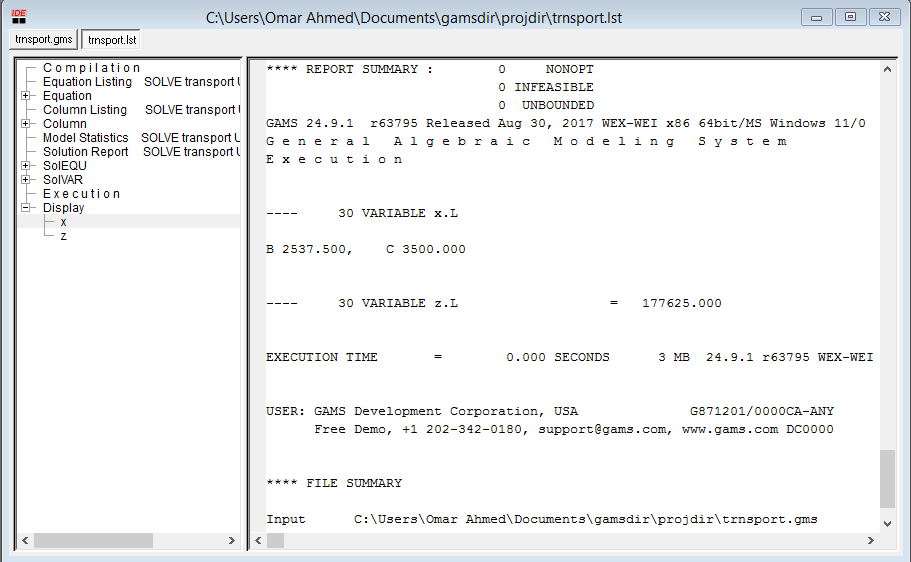




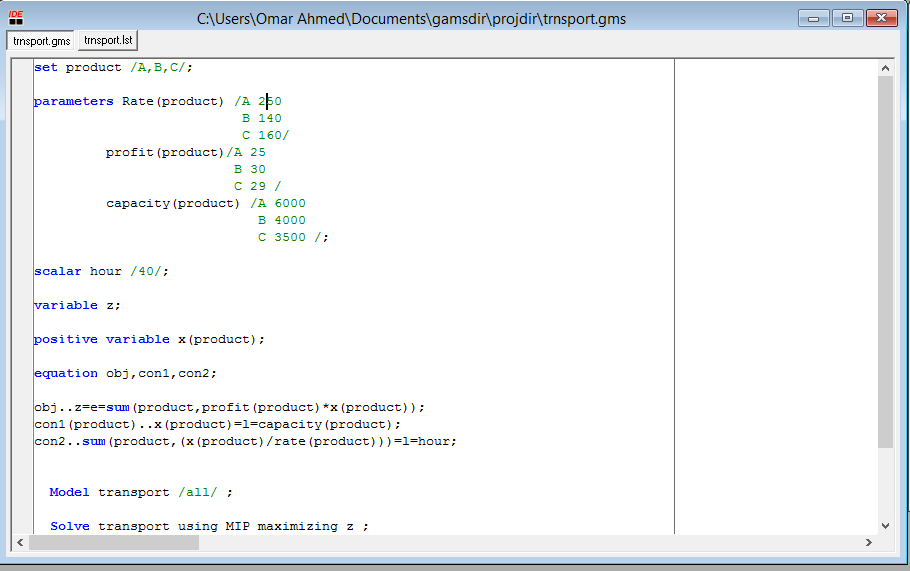
3-Suggest alternative policy measures and analyse the impact

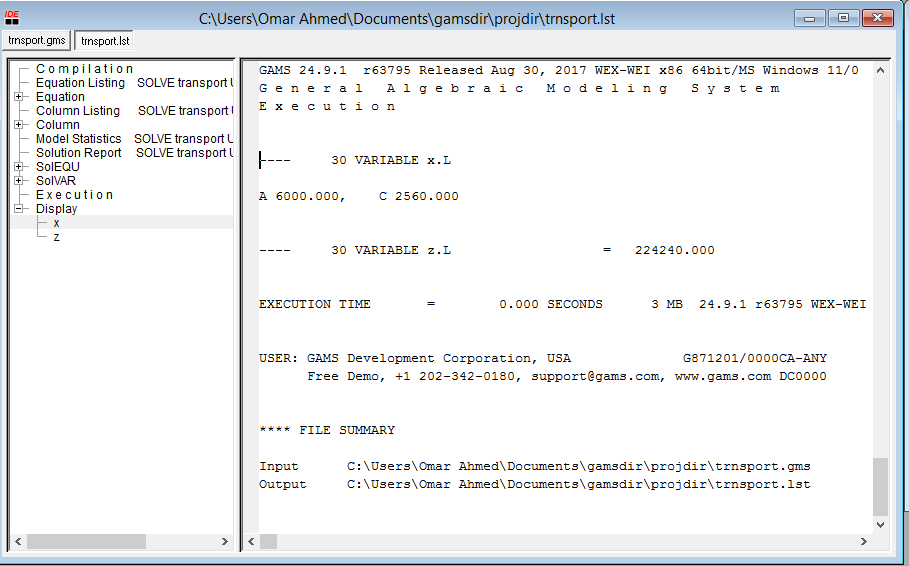
Decreasing the value of the production rate by 25% of the Product A decrease the objective function.



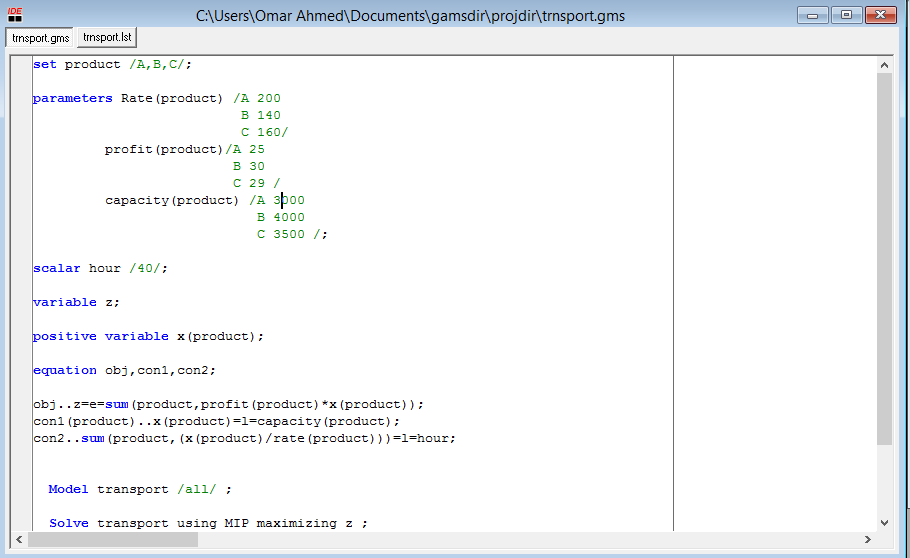


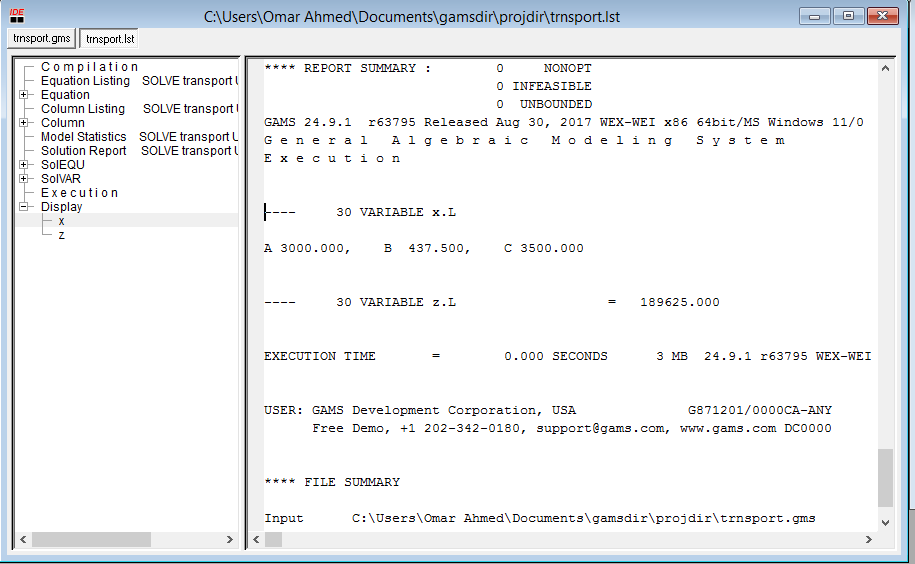
Increasing the value of the production rate by 25% of the Product A decrease the objective function.



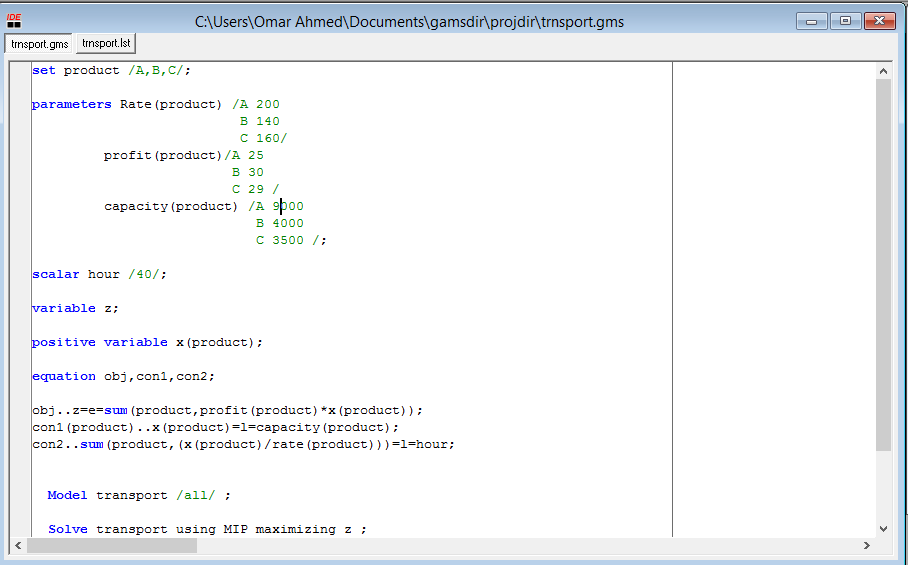


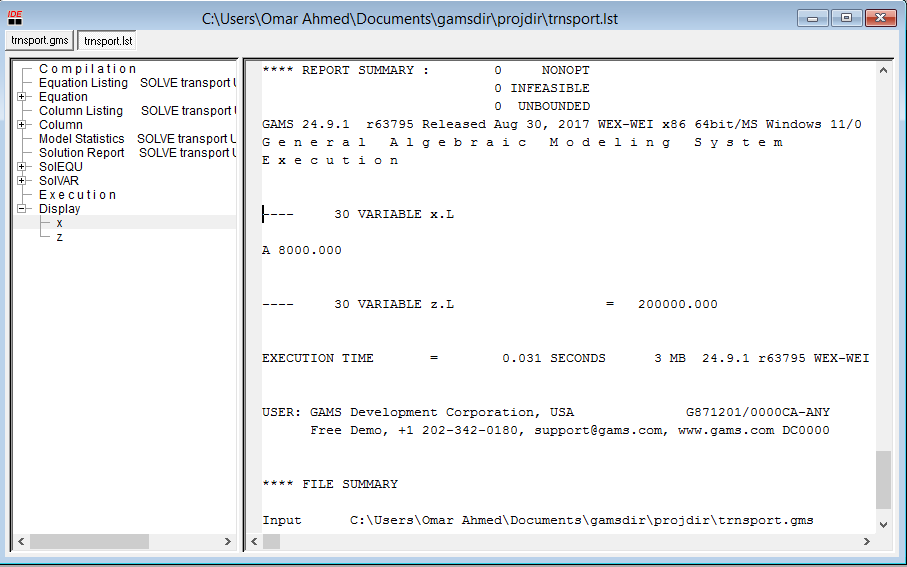
\*Decrease Product of Production Capacity of A by 50%:





\*Increase Product of Production Capacity of A by 50%:





C) **Assuming that the production manager decided – for technical reasons to add**

**Lower bounds (in tonnes) on the production of the three products**

