1. Once an actor plays a certain character in a scene for example, he or she needs to play that character in the whole play.
2. Another constraint is that you cannot have two actors together play a character as that will confuse the audience.
3. An actor obviously also cannot play more than one character in the same scene.
4. There are furthermore a couple of leading characters and the actors assigned to those characters cannot play any other character as that would again confuse the audience.
5. There are also parts for males that can only be played by men, parts for females that can only be played by women, etc.
6. Another constraint is that to allow people to change costume, an actor cannot play one character in one scene and another in the scene that is directly next, i.e., at least one scene needs to be in between any actor playing two different characters.
7. A final constraint is that no actor can be assigned to more than a given maximal number of characters, this as assigning too many characters to an actor will again confuse the audience.

As said, we are looking for an assignment of actors to characters that satisfies the above given constraints and that minimizes the number of required actors.