**Model.**

Parameters:

$S\_{C }$: *Selling Price of Drink type* $c$*,* $ where c\in \left(Thunder, Viper\right)$

$F\_{ic}$: *Minimum fraction of drink* $i$ *to be present in Drink type* $c$*,* $ where i\in \left(Mixer, Vodka, Whiskey\right)$*,* $ c\in \left(Thunder, Viper\right)$

$A\_{i }$: *Availability of material* $i$*,* $ where i\in \left(Mixer, Vodka, Whiskey\right)$

Decisions:

$x\_{ic}$: *Ounces of material* $ i to $*to be allocated to drink type* $c$ *,* $ where i\in \left(Mixer, Vodka, Whiskey\right)$*,* $ c\in \left(Thunder, Viper\right)$

Objective: *Maximize Revenue*

$max\sum\_{i\in ( Thunder, Viper)}^{} $ $x\_{ic}$\*$ S\_{C}$

Constraints:

$ x\_{ic }\geq 0 \left(1\right)$ Non- negative allocation

$x\_{ic} \geq F\_{ic}\* \sum\_{i}^{}x\_{ic } ($2) Satisfy minimum percentage of each material units of in each candy type

$ \sum\_{c}^{}x\_{ic }\leq A\_{i } $ (3) Maximum availability of materials.

