Problema 2: PROGRAMAÇÃO DE PESSOAL

Importação Bibliotecas

In [ ]:
```
from pulp import *
```

In [ ]:
```
problem = LpProblem("ProblemaProducao", LpMinimize)

empregados_requeridos = [ 17,  13,  15,  19,  14,  16,  11] #n funcionari

N = len(empregados_requeridos)
dias = list(range(N))

funcionarios = LpVariable.dicts("funcionarios", dias, lowBound=0, cat="In

#Objective function
problem += lpSum([funcionarios[i] for i in dias])

#Constraints
for d in dias:
    problem += lpSum([funcionarios[(N-i+d)%N] for i in range(5)]) >= empr
```

In [ ]:
```
#Solve
result = problem.solve(PULP_CBC_CMD(msg=0))
```

In [ ]:
```
#Resultados
for v in problem.variables():
    print(v.name, "=", v.varValue)

print("FO =", value(problem.objective))

print("Current Status =", LpStatus[problem.status])
```

```
funcionarios_0 = 2.0
funcionarios_1 = 6.0
funcionarios_2 = 0.0
funcionarios_3 = 7.0
funcionarios_4 = 0.0
funcionarios_5 = 3.0
funcionarios_6 = 5.0
FO = 23.0
Current Status = Optimal
```