

testing

May 2, 2025

```
[ ]: # IMPORT PACKAGES, /modules, AND LIBRARIES
# -----
# Import functions from modules
from modules import *

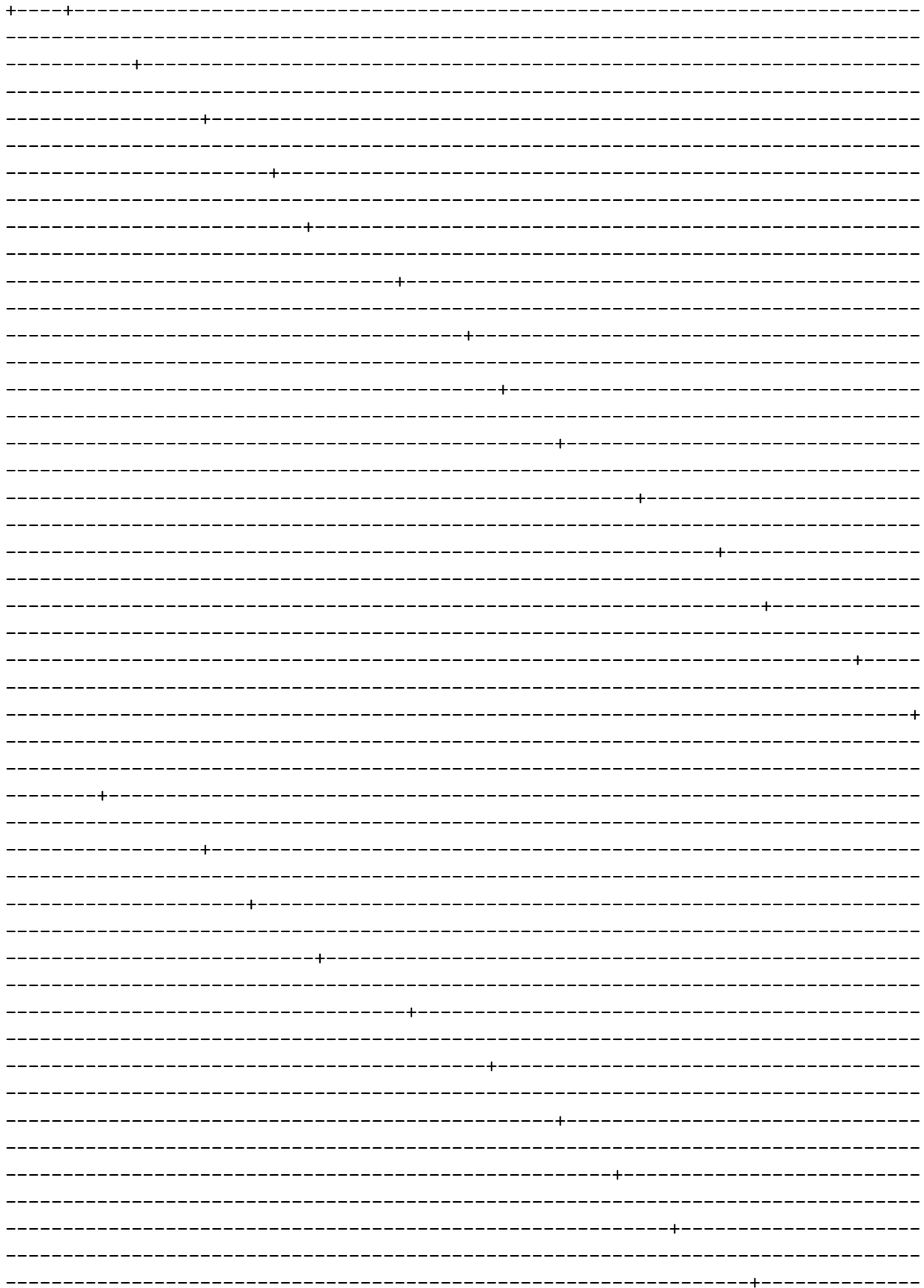
# DATA SOURCE INIT
# -----
# Input datasource to Master_df
Master_df = pd.DataFrame(
    pd.read_excel(
        "Datasource/Master Data.xlsx",
        sheet_name="Location Distance",
    )
)

# PSO INITIALIZATION
# -----
# Base Parameter
n = 100 # Max Iteration
N = 25 # Swarm Size
d = len(Master_df) # Dimention Size
c1 = 2 # Learning Rates
c2 = 2 # Learning Rates

# Inertia Weight
# here, i use random inertia weight strategy every iteration
# so, i generate it by function in function_def.py

# Position Clamping
X_min = 0
X_max = 1

# Generate Xj and Initial Position
Xj = initial_swarm_positions(N, d, X_min, X_max)
print_df(Xj)
```



0.03185466764353273, 0.5166751062312688] | [0.067816705274797,
0.39945164367205555, 0.7502678588552493, 0.3984024563768004, 0.5052861748049253,
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| [0.8538083397962329, 0.4788777281290597, 0.08010678027715001,
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