```
import cupy as cp

# Define the size of DP array
N = 10000

# Initialize DP array on GPU
dp = cp.zeros(N, dtype=cp.int32)

# Base cases
dp[0] = 1
dp[1] = 1
dp[2] = 1
dp[3] = 2

# Sequential loop on GPU with CuPy array
for i in range(4, N):
    dp[i] = dp[i - 1] + dp[i - 3] + dp[i - 4]

# Copy result to CPU and print first few values
result = cp.asnumpy(dp)
print(result[:20])
```

HPC ch mini project ahe

Implement Non-Serial Polyadic Dynamic Programming With GPU Parallelization

cuda sarkha ch run krya ch ahe

google colab vr

Step 1: Setup Google Colab

Go to Runtime > Change runtime type > GPU.