Node Assignment by Oyester Training
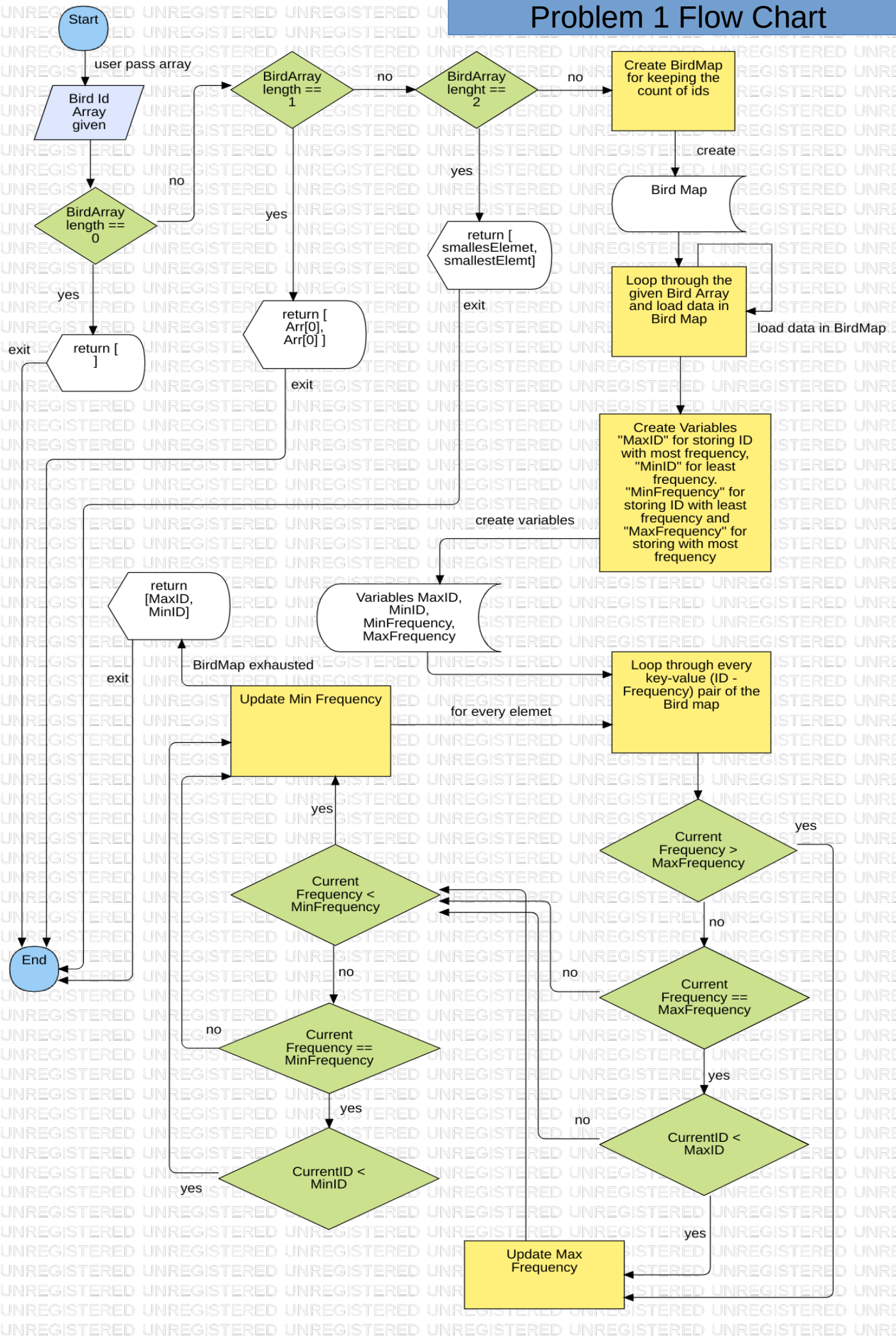
Candidate Name:
Gaurav Vishwakarma

Problem 1 Flow Chart

Start

user pass array

Bird Id Array given

BirdArray length == 1 — no → BirdArray lenght == 2 — no → Create BirdMap for keeping the count of ids

no ↓

BirdArray length == 0

yes ↓ (from length==1)

return [Arr[0], Arr[0]]

exit

yes ↓ (from length==2)

return [smallesElemet, smallestElemt]

exit

yes ↓ (from length==0)

return [ ]

exit → **End**

create ↓

Bird Map

Loop through the given Bird Array and load data in Bird Map

load data in BirdMap

↓

Create Variables "MaxID" for storing ID with most frequency, "MinID" for least frequency. "MinFrequency" for storing ID with least frequency and "MaxFrequency" for storing with most frequency

create variables →

Variables MaxID, MinID, MinFrequency, MaxFrequency

→ Loop through every key-value (ID - Frequency) pair of the Bird map

return [MaxID, MinID]

exit → **End**

BirdMap exhausted

Update Min Frequency

for every elemet →

↓

Current Frequency > MaxFrequency — yes →

no ↓

Current Frequency == MaxFrequency — no →

yes ↓

CurrentID < MaxID — no →

yes ↓

Update Max Frequency

yes ↑ (to Update Min Frequency)

Current Frequency < MinFrequency

no ↓

Current Frequency == MinFrequency — no →

yes ↓

CurrentID < MinID

yes ← (to Update Min Frequency)

Problem 2 Flow Chart

Start

User Pass Data

User passesTime String

Spite time string using delimiter ":" and pull out Hours, Min, Seconds, Mode(AM/PM)

Create new variables and initialize them, newHr=0, newMin=0, newSec=0 → newHr = 0, newSec = 0, newMin = 0

Given seconds + 45 > 60
- no → newSec = given second + 45
- yes → newSec = (given second + 45)%60 and newMin = 1

next

Given Minutes + 45 > 60
- no → newMin = Given Minutes + 45
- yes → newMin = (newMin + given minutes + 45)%60 and HourCarry = 1

HourCarry = 1

used here

next

Given mode is AM
- no → newHr = 12
- yes → newHr = 0

next

Given Hour is 12 and Mode is AM
- no → **Given Hour is 12 and Mode is PM**
  - yes → newHr = 0
- yes → newHr = 12

next

newHr = (HourCarry + Given Hour)%24

Return " newHr : newMin : newSec "

End