## SSID: WWCode Password: password



## WOMEN WHO



## Machine Learning and Al Study Group

Twitter: @wwcodemanila FB: fb.com/wwcodemanila

#WWCodeManila #WWCode.ML.AI #StudyGroup



#### **Issa Tingzon**

Research Fellow II PCARI

#### **OUR MISSION**

Inspiring women to excel in technology careers.





#### **OUR VISION**

A world where women are representative as technical executives, founders, VCs, board members and software engineers.





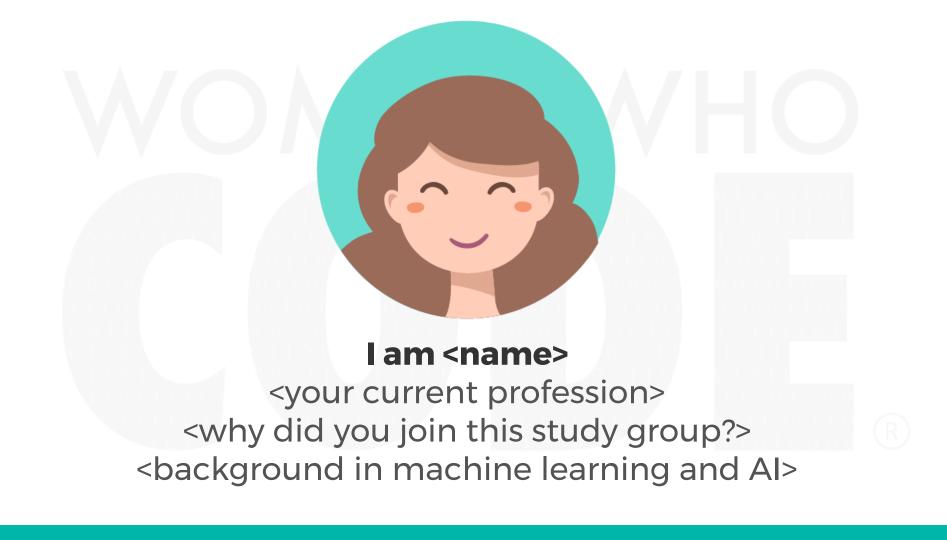
#### STUDY GROUP

Study groups are events where women can come together and help each other learn and understand a specific programming language, technology, or anything related to coding or engineering.

#### **GUIDELINES**

- Study groups are **not** a class/lecture
- If you have a question, just **ask**
- If you have an idea, share it
- Make friends and learn from your study groupmates
- Do not recruit or promote your business

## New Member's Introduction



#### SHOW & TELL

Finished any previous exercises or assignment?
Share it!

## TOPIC FOR TODAY CATEGORICAL DATA

#### **CATEGORICAL DATA**

- Classifiers generally accept **numerical input** (discrete, continuous)
- Not all classifiers can process **string input** (e.g. 'Male', 'Female')
- We need a way to convert categorical data into numerical data.

#### **CATEGORICAL DATA**

#### **Nominal**

- no intrinsic ordering

Hair colour: red, black, blonde

Race: Asian, Hispanic, African

OS type: Chrome, Firefox, IE, Safari

#### **Ordinal**

- an ordering exists

#### Highest attained educational background:

Elementary, High School, College

Military Rank: Captain, Major, Colonel, General

Ratings: Poor, Neutral, Good, Excellent

#### **CATEGORICAL DATA**

user ID	education	gender	eye_color
1	Elementary	Female	blue
2	College	Male	brown
3	High School	Female	green
4	College	Male	brown
5	High School	Female	green

Which features are ordinal? nominal? binary?

#### **HOW TO HANDLE CATEGORICAL DATA?**

user ID	education	gender	eye_color. blue	eye_color.brown	eye_color.green
1	0	1	1	0	0
2	2	0	0	1	0
3	1	1	0	0	1
4	2	0	0	1	0
5	1	1	0	0	1

**Goal**: Find an appropriate mapping of the categorical (string) data to numerical data.

### Partner/Group/Individual Exercise:

## 1. HANDLING CATEGORICAL VALUES TUTORIAL 2. ADULT CENSUS INCOME DATASET

Note: First-timers/beginners are recommended to start with the Introduction to ML Tutorial

## Partner/Group/Individual Presentation

## T.I.L.

#### SHARE IT! In front!

On Twitter: @wwcodemanila

Or FB: fb.com/wwcodemanila

Don't forget to tag WWCodeManila so we can retweet or share it.

#### Feedback Form

https://goo.gl/YzSqcS

Please don't rate the event on meetup.

Not helpful. It is best to just tell your concerns via the feedback form. We are a building a community not a Yelp restaurant.

# THANK YOU:)