

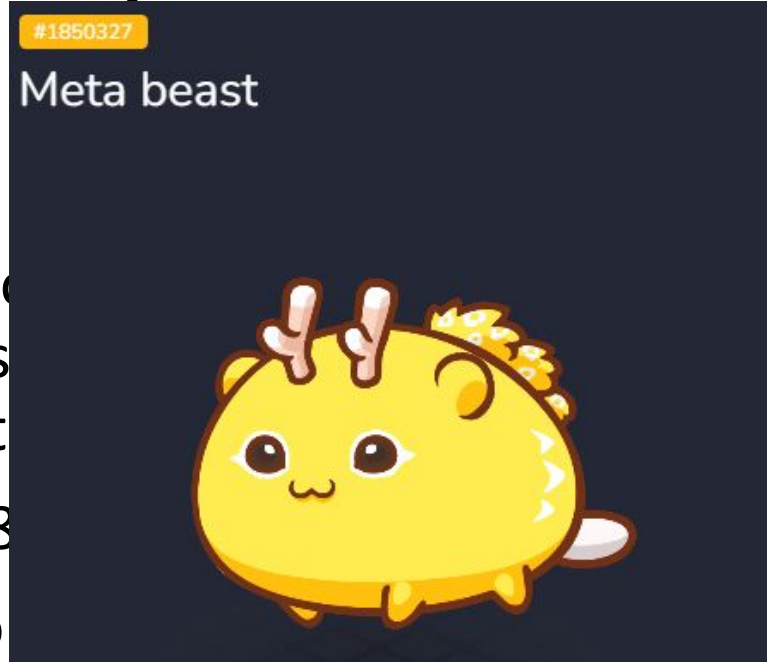
Data Analysis on a Crypto Game

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Axie Infinity

- Axie Infinity-p
breed and rais
information st
- June 2021 - 78
- revenue as ho
- axie-the pet you own
- It takes small love potions(SLP) to buy, breed, and raise an axie
- the breed count of an axie is also limited to 7 during lifetime



0.016
\$47.42 Buy now

CLASS BREED COUNT
Beast 3/7

OWNER
Lunacian #5 (ronin:eec7776f8b35c4a6f056c04b118bd58e2b565ebe)

Origin Classic

HEALTH 31 SPEED 43 SKILL 31 MORALE 59

Research Statement, Project relevance, and hypothesis

- Research Statement
 - analyzing the characteristics of the NFT game called Axie Infinity
- Project relevance
 - popularity
 - earn a living by playing this game
- Hypothesis
 - correlation between different traits of the axes in the NFT game

Axie Infinity Investigation

- it takes SLP to buy, breed, and raise an axie and the total breedcount of an axie is limited to 7
- -->axies with more breed counts worth more?(a relationship between breed count and price?)
- -->if not, what other traits are favored by players?
- class, breedcount, price, hp(health), speed, skill, morale

Work Plan

- Fall 2021
 - groundwork
 - learn about NFT and Axie Infinity
- Spring 2022
 - get an workable dataset
 - run some analysis model on the dataset to test the correlation between breedcount and price
 - discuss the results and explore other traits that might influence prices

Method and Materials

- **Methods:**

- use graph query to get axie data dictionaries
- clean the raw data into desired datasets in Python
- test the pearson and spearsman correlation on the cleaned datasets
- apply OLS and k-means model
- visualize the k-means cluster results in Jupyter Notebook

- **Materials:**

- <https://drive.google.com/drive/folders/1dWwwzoM7jA6FW7FWPIIm-yGBRDCo7X01Z?usp=sharing>

Results and Analysis (N=1381)

	breedcount	class	hp	speed	skill	morale
OLS						
R ²	0.001	0.001	0.004	0.005	0.005	0.004
coef	412.5979	170.5612	42.6591	48.2151	65.6429	46.8711
std err	414.298	185.133	18.376	18.393	25.663	20.049
t	0.996	0.921	2.321	2.621	2.558	2.338
P> t	0.319	0.357	0.02	0.009	0.011	0.02
Pearsons correlation						
	-0.028	-0.035	-0.014	0.022	0.021	-0.012
Spearman's correlation						
	-0.025	0.062	0.042	-0.066	-0.049	0.031

all non robust

#3493761

Auction info

\$895,770.96

Buy now

Koi AJX2



CLASS

 Aquatic

BREED COUNT

0 / 7 

OWNER

bklove (ronin:114bc753d69f31fa4a200c7f115460fa3d8d9b48)

BODY PARTS



Nerdy



Bubblemaker



Turnip

Level 1



Tiny Turtle

Level 1



Shoal Star

Level 1



Koi

Level 1

Origin

Classid

HEALTH

 49

SPEED

 49

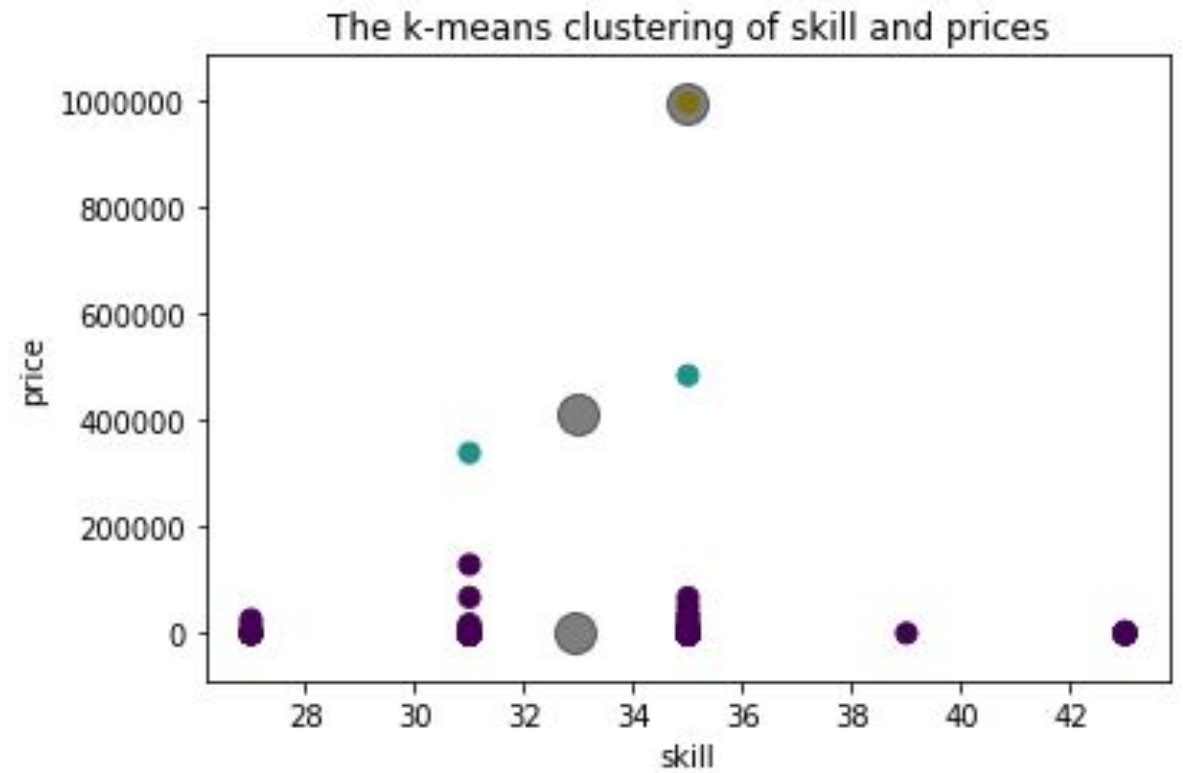
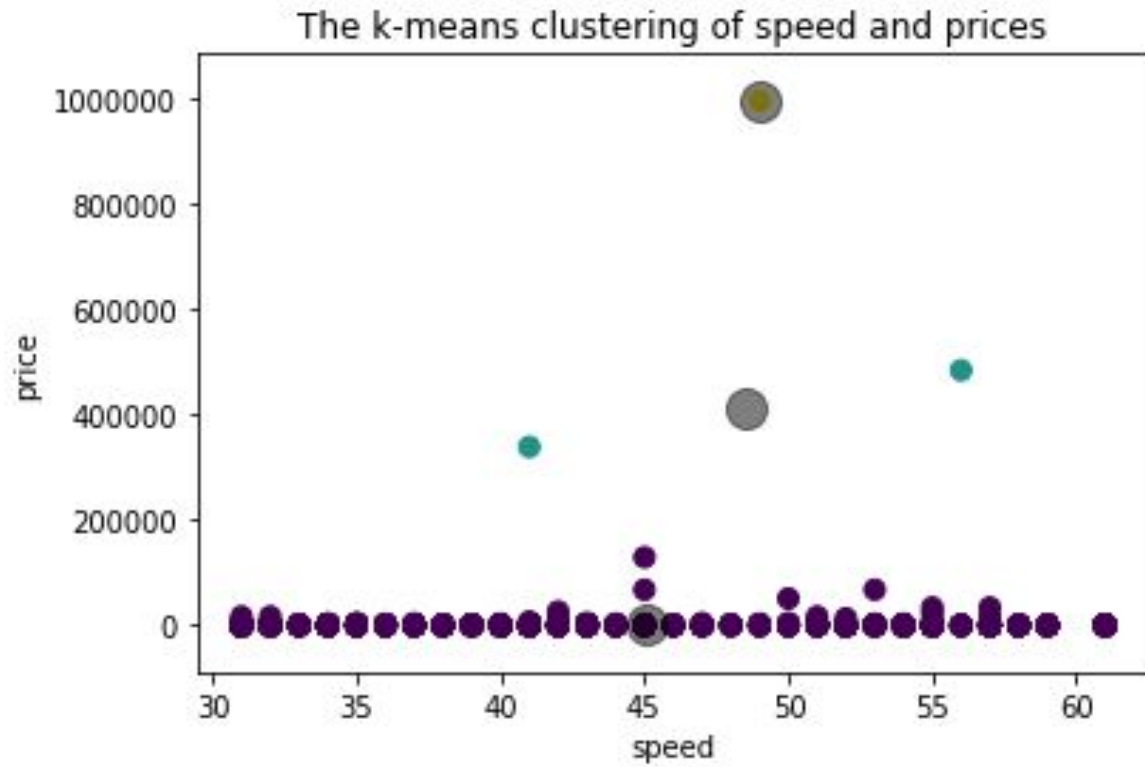
SKILL

 35

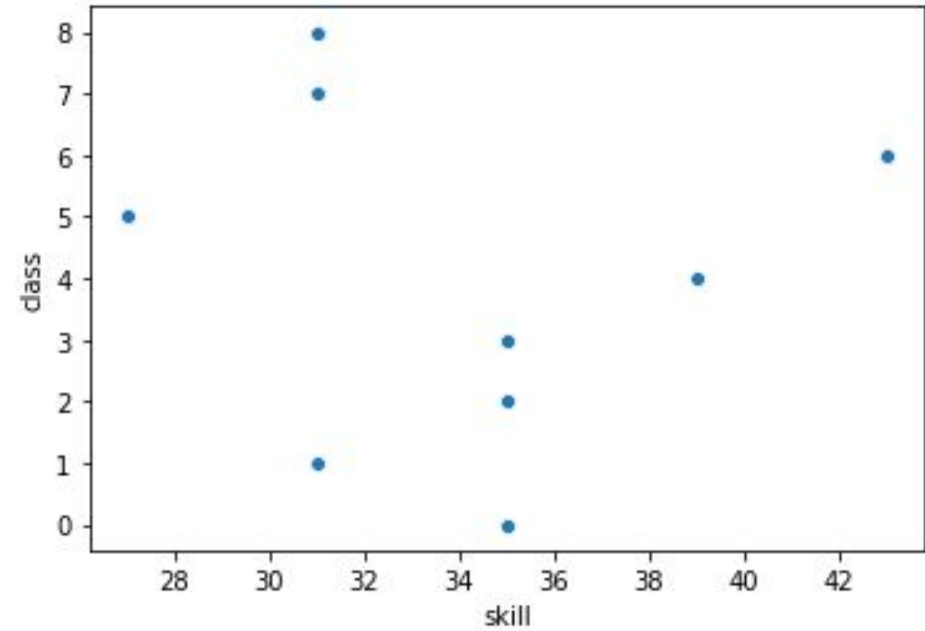
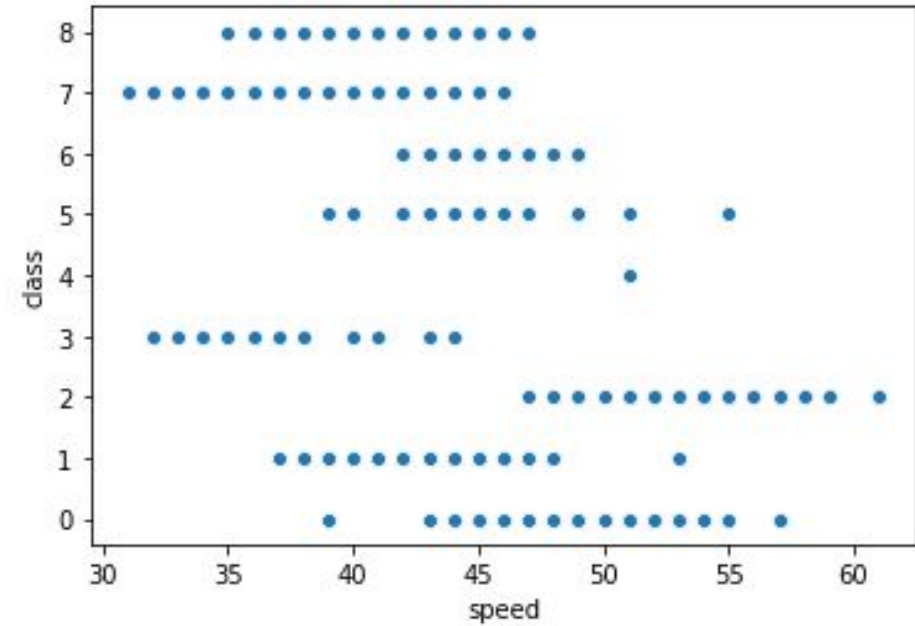
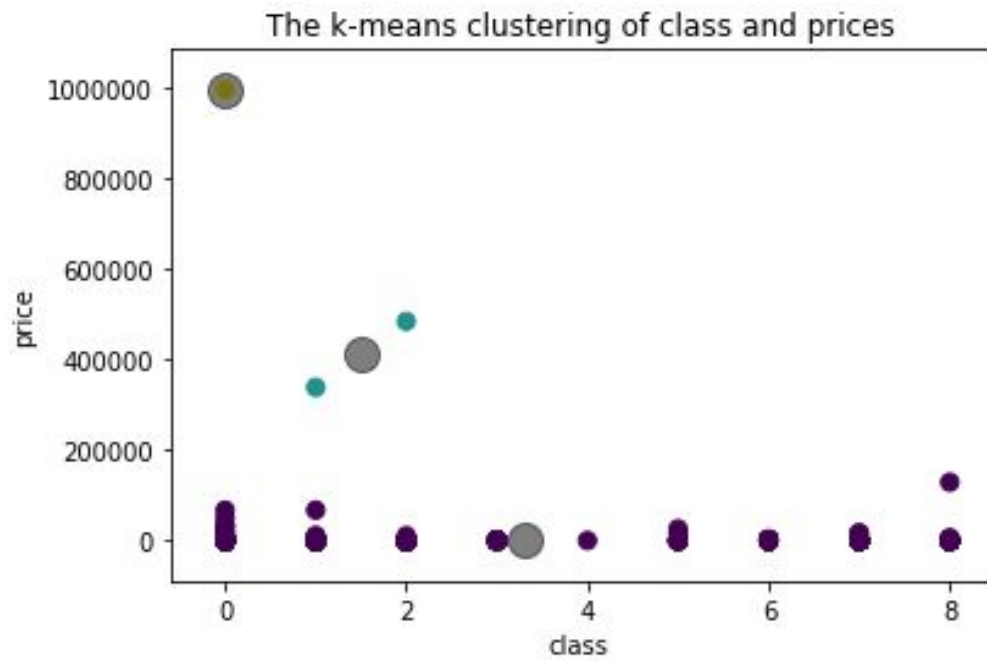
MORALE

 31

speed and skill



class



Conclusion

- less breedcount axes might have higher prices
- average classic traits are preferred
- there are significant differences between class traits
- future work
 - examine the relationship between body part and prices to find the determining characteristics of higher priced axes
 - explore more relationships between traits and classes

Reference

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