

# MBTI Prediction with kNN

# The Data

Name	Ne	Ni	Te	Ti	Se	Si	Fe	Fi	Type
Kuuga	35.4	31	33	30	38	31	34	31	ENTP
Agito	26	31	33	30	26	33	30	24	INTJ
Ryuki	24.4	30.2	31	34	28	36	22	17	ISTJ
Blade	22.2	25.8	36	37	29	36	34	22	ENTJ
Hibiki	43.2	34	36	36	39	38	40	35	INTP
Kabuto	32.4	27	35	34	27	23	31	19	ENFP
Den-O	28.4	25.6	33	35	32	30	24	26	ESTP
Kiva	30.2	31.4	35	33	36	33	36	34	ENTJ
Decade	19.4	12	25	28	25	23	23	22	ESTJ
Fourze	33.4	38.6	29	29	26	37	24	25	INTJ
Gaim	30	29.6	34	32	38	28	33	22	ENTP
Ex-Aid	29	22.8	40	28	27	31	29	19	ENTJ
Zi-O	25.5	33	28	34	37	27	28	24	INFJ
Saber	29.8	26.4	28	36	29	30	33	28	INTJ
Revice	18.4	15	30	33	33	31	26	23	ESTJ

# The Query

Name	Ne	Ni	Te	Ti	Se	Si	Fe	Fi	Type
Kuuga	35.4	31	33	30	38	31	34	31	ENTP
Agito	26	31	33	30	26	33	30	24	INTJ
Ryuki	24.4	30.2	31	34	28	36	22	17	ISTJ
Blade	22.2	25.8	36	37	29	36	34	22	ENTJ
Hibiki	43.2	34	36	36	39	38	40	35	INTP
Kabuto	32.4	27	35	34	27	23	31	19	ENFP
Den-O	28.4	25.6	33	35	32	30	24	26	ESTP
Kiva	30.2	31.4	35	33	36	33	36	34	ENTJ
Decade	19.4	12	25	28	25	23	23	22	ESTJ
Fourze	33.4	38.6	29	29	26	37	24	25	INTJ
Gaim	30	29.6	34	32	38	28	33	22	ENTP
Ex-Aid	29	22.8	40	28	27	31	29	19	ENTJ
Zi-O	25.5	33	28	34	37	27	28	24	INFJ
Saber	29.8	26.4	28	36	29	30	33	28	INTJ
Revice	18.4	15	30	33	33	31	26	23	ESTJ

Query	32	32	27	36	29	31	28	23
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# The Distance

Name	Ne	Ni	Te	Ti	Se	Si	Fe	Fi	Type	Distance
Kuuga	35.4	31	33	30	38	31	34	31	ENTP	16.29601
Agito	26	31	33	30	26	33	30	24	INTJ	11.26943
Ryuki	24.4	30.2	31	34	28	36	22	17	ISTJ	13.37909
Blade	22.2	25.8	36	37	29	36	34	22	ENTJ	16.68772
Hibiki	43.2	34	36	36	39	38	40	35	INTP	25.44484
Kabuto	32.4	27	35	34	27	23	31	19	ENFP	13.64405
Den-O	28.4	25.6	33	35	32	30	24	26	ESTP	11.22141
Kiva	30.2	31.4	35	33	36	33	36	34	ENTJ	17.73697
Decade	19.4	12	25	28	25	23	23	22	ESTJ	27.06954
Fourze	33.4	38.6	29	29	26	37	24	25	INTJ	12.78749
Gaim	30	29.6	34	32	38	28	33	22	ENTP	13.81159
Ex-Aid	29	22.8	40	28	27	31	29	19	ENTJ	18.64511
Zi-O	25.5	33	28	34	37	27	28	24	INFJ	11.36882
Saber	29.8	26.4	28	36	29	30	33	28	INTJ	9.391486
Revice	18.4	15	30	33	33	31	26	23	ESTJ	22.62653

Query	32	32	27	36	29	31	28	23
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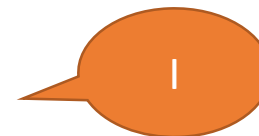
# The 3 Nearest Neighbors

Name	Ne	Ni	Te	Ti	Se	Si	Fe	Fi	Type	Distance
Kuuga	35.4	31	33	30	38	31	34	31	ENTP	16.29601
Agito	26	31	33	30	26	33	30	24	INTJ	11.26943
Ryuki	24.4	30.2	31	34	28	36	22	17	ISTJ	13.37909
Blade	22.2	25.8	36	37	29	36	34	22	ENTJ	16.68772
Hibiki	43.2	34	36	36	39	38	40	35	INTP	25.44484
Kabuto	32.4	27	35	34	27	23	31	19	ENFP	13.64405
Den-O	28.4	25.6	33	35	32	30	24	26	ESTP	11.22141
Kiva	30.2	31.4	35	33	36	33	36	34	ENTJ	17.73697
Decade	19.4	12	25	28	25	23	23	22	ESTJ	27.06954
Fourze	33.4	38.6	29	29	26	37	24	25	INTJ	12.78749
Gaim	30	29.6	34	32	38	28	33	22	ENTP	13.81159
Ex-Aid	29	22.8	40	28	27	31	29	19	ENTJ	18.64511
Zi-O	25.5	33	28	34	37	27	28	24	INFJ	11.36882
Saber	29.8	26.4	28	36	29	30	33	28	INTJ	9.391486
Revice	18.4	15	30	33	33	31	26	23	ESTJ	22.62653

Query	32	32	27	36	29	31	28	23
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# The 1st Letter

Name	Ne	Ni	Te	Ti	Se	Si	Fe	Fi	Type	Distance
Kuuga	35.4	31	33	30	38	31	34	31	ENTP	16.29601
Agito	26	31	33	30	26	33	30	24	INTJ	11.26943
Ryuki	24.4	30.2	31	34	28	36	22	17	ISTJ	13.37909
Blade	22.2	25.8	36	37	29	36	34	22	ENTJ	16.68772
Hibiki	43.2	34	36	36	39	38	40	35	INTP	25.44484
Kabuto	32.4	27	35	34	27	23	31	19	ENFP	13.64405
Den-O	28.4	25.6	33	35	32	30	24	26	ESTP	11.22141
Kiva	30.2	31.4	35	33	36	33	36	34	ENTJ	17.73697
Decade	19.4	12	25	28	25	23	23	22	ESTJ	27.06954
Fourze	33.4	38.6	29	29	26	37	24	25	INTJ	12.78749
Gaim	30	29.6	34	32	38	28	33	22	ENTP	13.81159
Ex-Aid	29	22.8	40	28	27	31	29	19	ENTJ	18.64511
Zi-O	25.5	33	28	34	37	27	28	24	INFJ	11.36882
Saber	29.8	26.4	28	36	29	30	33	28	INTJ	9.391486
Revice	18.4	15	30	33	33	31	26	23	ESTJ	22.62653



Query	32	32	27	36	29	31	28	23
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Two Is



# The 2nd Letter

Name	Ne	Ni	Te	Ti	Se	Si	Fe	Fi	Type	Distance
Kuuga	35.4	31	33	30	38	31	34	31	ENTP	16.29601
Agito	26	31	33	30	26	33	30	24	INTJ	11.26943
Ryuki	24.4	30.2	31	34	28	36	22	17	ISTJ	13.37909
Blade	22.2	25.8	36	37	29	36	34	22	ENTJ	16.68772
Hibiki	43.2	34	36	36	39	38	40	35	INTP	25.44484
Kabuto	32.4	27	35	34	27	23	31	19	ENFP	13.64405
Den-O	28.4	25.6	33	35	32	30	24	26	ESTP	11.22141
Kiva	30.2	31.4	35	33	36	33	36	34	ENTJ	17.73697
Decade	19.4	12	25	28	25	23	23	22	ESTJ	27.06954
Fourze	33.4	38.6	29	29	26	37	24	25	INTJ	12.78749
Gaim	30	29.6	34	32	38	28	33	22	ENTP	13.81159
Ex-Aid	29	22.8	40	28	27	31	29	19	ENTJ	18.64511
Zi-O	25.5	33	28	34	37	27	28	24	INFJ	11.36882
Saber	29.8	26.4	28	36	29	30	33	28	INTJ	9.391486
Revice	18.4	15	30	33	33	31	26	23	ESTJ	22.62653

N

S

N

IN

Query	32	32	27	36	29	31	28	23
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Two Ns

N ?



# The 3rd Letter

Name	Ne	Ni	Te	Ti	Se	Si	Fe	Fi	Type	Distance
Kuuga	35.4	31	33	30	38	31	34	31	ENTP	16.29601
Agito	26	31	33	30	26	33	30	24	INTJ	11.26943
Ryuki	24.4	30.2	31	34	28	36	22	17	ISTJ	13.37909
Blade	22.2	25.8	36	37	29	36	34	22	ENTJ	16.68772
Hibiki	43.2	34	36	36	39	38	40	35	INTP	25.44484
Kabuto	32.4	27	35	34	27	23	31	19	ENFP	13.64405
Den-O	28.4	25.6	33	35	32	30	24	26	ESTP	11.22141
Kiva	30.2	31.4	35	33	36	33	36	34	ENTJ	17.73697
Decade	19.4	12	25	28	25	23	23	22	ESTJ	27.06954
Fourze	33.4	38.6	29	29	26	37	24	25	INTJ	12.78749
Gaim	30	29.6	34	32	38	28	33	22	ENTP	13.81159
Ex-Aid	29	22.8	40	28	27	31	29	19	ENTJ	18.64511
Zi-O	25.5	33	28	34	37	27	28	24	INFJ	11.36882
Saber	29.8	26.4	28	36	29	30	33	28	INTJ	9.391486
Revice	18.4	15	30	33	33	31	26	23	ESTJ	22.62653



Query	32	32	27	36	29	31	28	23
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Three Ts





# The 4th Letter

Name	Ne	Ni	Te	Ti	Se	Si	Fe	Fi	Type	Distance
Kuuga	35.4	31	33	30	38	31	34	31	ENTP	16.29601
Agito	26	31	33	30	26	33	30	24	INTJ	11.26943
Ryuki	24.4	30.2	31	34	28	36	22	17	ISTJ	13.37909
Blade	22.2	25.8	36	37	29	36	34	22	ENTJ	16.68772
Hibiki	43.2	34	36	36	39	38	40	35	INTP	25.44484
Kabuto	32.4	27	35	34	27	23	31	19	ENFP	13.64405
Den-O	28.4	25.6	33	35	32	30	24	26	ESTP	11.22141
Kiva	30.2	31.4	35	33	36	33	36	34	ENTJ	17.73697
Decade	19.4	12	25	28	25	23	23	22	ESTJ	27.06954
Fourze	33.4	38.6	29	29	26	37	24	25	INTJ	12.78749
Gaim	30	29.6	34	32	38	28	33	22	ENTP	13.81159
Ex-Aid	29	22.8	40	28	27	31	29	19	ENTJ	18.64511
Zi-O	25.5	33	28	34	37	27	28	24	INFJ	11.36882
Saber	29.8	26.4	28	36	29	30	33	28	INTJ	9.391486
Revice	18.4	15	30	33	33	31	26	23	ESTJ	22.62653



Query	32	32	27	36	29	31	28	23
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Two Js



# The 5 Nearest Neighbors

Name	Ne	Ni	Te	Ti	Se	Si	Fe	Fi	Type	Distance
Kuuga	35.4	31	33	30	38	31	34	31	ENTP	16.29601
Agito	26	31	33	30	26	33	30	24	INTJ	11.26943
Ryuki	24.4	30.2	31	34	28	36	22	17	ISTJ	13.37909
Blade	22.2	25.8	36	37	29	36	34	22	ENTJ	16.68772
Hibiki	43.2	34	36	36	39	38	40	35	INTP	25.44484
Kabuto	32.4	27	35	34	27	23	31	19	ENFP	13.64405
Den-O	28.4	25.6	33	35	32	30	24	26	ESTP	11.22141
Kiva	30.2	31.4	35	33	36	33	36	34	ENTJ	17.73697
Decade	19.4	12	25	28	25	23	23	22	ESTJ	27.06954
Fourze	33.4	38.6	29	29	26	37	24	25	INTJ	12.78749
Gaim	30	29.6	34	32	38	28	33	22	ENTP	13.81159
Ex-Aid	29	22.8	40	28	27	31	29	19	ENTJ	18.64511
Zi-O	25.5	33	28	34	37	27	28	24	INFJ	11.36882
Saber	29.8	26.4	28	36	29	30	33	28	INTJ	9.391486
Revice	18.4	15	30	33	33	31	26	23	ESTJ	22.62653

Query	32	32	27	36	29	31	28	23
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INTJ

# Can you do it with out....

- $O(N^2)$  or  $O(N \log N)$ ..... Sorting?

How about using constant time?

$O(N)$