Name of the topic:

After running LDA on Wikipedia, I got topic names as Topic 0, Topic 1 to Topic 19. Then I have checked the topic structure and found that it is a tuple consist of index number and topic word weight. So I have considered two words with highest weight, concatenated these two words and given as topic name. Else, I have to give topic name manually.

Topic names:

- 1. party'&'election
- 2. album'&'song
- 3. india'&'indian
- 4. ngc'&'medicine
- 5. ship'&'aircraft
- 6. bank'&'business
- 7. art'&'german
- 8. television'&'cast
- 9. physics'&'mathematics
- 10. canton'&'saint
- 11.church'&'bishop
- 12.league'&'football
- 13. species'&'genus
- 14.mf'&'game
- 15. illinois'&'michigan
- 16. research'&'education
- 17. greek'&'temple
- 18. station'&'railway
- 19.la'&'finals
- 20. army'&'al

Topics derived:

```
["'party'&'election'", '0.021*"party" + 0.021*"election" + 0.011*"assembly" + 0.010*"elected" + 0.009*"minister" + 0.009*"dem ocratic" + 0.009*"politician" + 0.009*"president" + 0.008*"legislative" + 0.007*"council"']

["'album'&'song'", '0.015*"album" + 0.010*"song" + 0.007*"chart" + 0.007*"band" + 0.006*"track" + 0.005*"vocals" + 0.004*"gui tar" + 0.004*"label" + 0.004*"singles" + 0.004*"listing"']

["'india'&'indian'", '0.013*"india" + 0.012*"indian" + 0.008*"singh" + 0.008*"pradesh" + 0.008*"chinese" + 0.008*"hong" + 0.007*"china" + 0.007*"kong" + 0.007*"tamil" + 0.006*"li"']

["'army'&'al'", '0.006*"army" + 0.005*"al" + 0.005*"regiment" + 0.004*"military" + 0.003*"division" + 0.003*"pakistan" + 0.003*"infantry" + 0.003*"mosque" + 0.002*"forces" + 0.002*"corps"']

["'ngc'&'medicine'", '0.010*"ngc" + 0.008*"medicine" + 0.008*"protein" + 0.008*"medical" + 0.008*"cancer" + 0.007*"spiders" + 0.006*"clinical" + 0.006*"gene" + 0.006*"disease" + 0.006*"treatment"']
```

```
["'la'&'finals'", '0.007*"la" + 0.006*"finals" + 0.006*"spanish" + 0.005*"reorganisation" + 0.005*"el" + 0.005*"del" + 0.005
*"italian" + 0.005*"fw" + 0.005*"fiba" + 0.004*"josé"']

["'ship'&'aircraft'", '0.007*"ship" + 0.006*"aircraft" + 0.006*"racing" + 0.005*"air" + 0.005*"navy" + 0.005*"class" + 0.005
*"car" + 0.004*"ships" + 0.004*"engine" + 0.004*"motorsport"']

["'bank'&'business'", '0.007*"bank" + 0.005*"business" + 0.005*"products" + 0.005*"million" + 0.005*"bangladesh" + 0.004*"foo
d" + 0.004*"companies" + 0.004*"founded" + 0.004*"investment" + 0.004*"market"']

["'station'&'railway'", '0.009*"station" + 0.008*"railway" + 0.007*"building" + 0.007*"historic" + 0.006*"village" + 0.006*"d
istrict" + 0.005*"river" + 0.005*"km" + 0.005*"express" + 0.005*"road"']

["'art'&'german'", '0.009*"art" + 0.006*"german" + 0.005*"la" + 0.005*"le" + 0.005*"museum" + 0.005*"paris" + 0.005*"french"
+ 0.004*"communes" + 0.004*"des" + 0.004*"der"']
```

```
["'television'&'cast'", '0.003*"television" + 0.003*"cast" + 0.003*"tv" + 0.003*"award" + 0.003*"directed" + 0.003*"festival" + 0.003*"episode" + 0.002*"films" + 0.002*"show" + 0.002*"awards"']

["'physics'&'mathematics'", '0.008*"physics" + 0.005*"mathematics" + 0.004*"solar" + 0.004*"theory" + 0.004*"quantum" + 0.004
*"galaxy" + 0.004*"chemistry" + 0.003*"mathematical" + 0.003*"attains" + 0.003*"research"']

["'canton'&'saint'", '0.057*"canton" + 0.045*"saint" + 0.026*"sur" + 0.020*"administrative" + 0.017*"effect" + 0.017*"seat" + 0.016*"france" + 0.012*"division" + 0.011*"came" + 0.011*"french"']

["'church'&'bishop'", '0.011*"church" + 0.009*"bishop" + 0.005*"catholic" + 0.003*"london" + 0.003*"roman" + 0.003*"diocese" + 0.003*"william" + 0.003*"parish" + 0.003*"royal" + 0.003*"pope"']

["'league'&'football'", '0.012*"league" + 0.010*"football" + 0.008*"cup" + 0.008*"club" + 0.008*"tournament" + 0.007*"champio nship" + 0.007*"championships" + 0.007*"round" + 0.006*"player" + 0.006*"goals"']
```

```
["'species'&'genus'", '0.022*"species" + 0.008*"genus" + 0.006*"grows" + 0.006*"mm" + 0.005*"australia" + 0.005*"endemic" + 0.005*"flowers" + 0.005*"description" + 0.005*"described" + 0.005*"shrub"']

["'mf'&'game'", '0.014*"mf" + 0.012*"game" + 0.008*"software" + 0.006*"data" + 0.006*"http" + 0.005*"www" + 0.005*"app" + 0.004*"radio" + 0.004*"fm" + 0.004*"users"']

["'greek'&'temple'", '0.016*"greek" + 0.014*"temple" + 0.011*"ancient" + 0.011*"roman" + 0.008*"bc" + 0.006*"inscription" + 0.006*"king" + 0.006*"bishopric" + 0.006*"ad" + 0.006*"cypriot"']

["'illinois'&'michigan'", '0.011*"illinois" + 0.009*"michigan" + 0.007*"texas" + 0.007*"virginia" + 0.007*"carolina" + 0.007*"iowa" + 0.006*"baseball" + 0.006*"ohio" + 0.006*"missouri" + 0.006*"washington"']

["'research'&'education'", '0.004*"research" + 0.004*"education" + 0.003*"professor" + 0.003*"science" + 0.003*"women" + 0.003*"institute" + 0.003*"law" + 0.002*"social" + 0.002*"health" + 0.002*"president"']
```

Wikipedia links:

- 1. https://en.wikipedia.org/wiki/US Lacrosse Intercollegiate Associa tes
- 2. https://en.wikipedia.org/wiki/This Is My Country (film)
- 3. https://en.wikipedia.org/wiki/Ch%C3%A2teau de Cordon

Names of the topic assigned to three wiki links:

```
web page1
Score: 0.766636848449707
                         Topic: 0.004*"research" + 0.004*"education" + 0.003*"professor" + 0.003*"science" + 0.003*"wom
Form: 0.003*"institute" + 0.003*"law" + 0.002*"social" + 0.002*"health" + 0.002*"president"

Score: 0.1350073218345642

Topic: 0.007*"ship" + 0.006*"aircraft" + 0.006*"racing" + 0.005*"air" + 0.005*"navy" + 0.005
0.003*"diocese" + 0.003*"william" + 0.003*"parish" + 0.003*"royal" + 0.003*"pope"
web page2
Score: 0.04786279797554016
                          Topic: 0.003*"television" + 0.003*"cast" + 0.003*"tv" + 0.003*"award" + 0.003*"directed" +
2019-03-23 12:22:14,431 : INFO : adding document #0 to Dictionary(0 unique tokens: []) 2019-03-23 12:22:14,434 : INFO : built Dictionary(157 unique tokens: ['p', 'b', 'château', 'de', 'cordon']...) from 341 docum
ents (total 341 corpus positions)
Score: 0.022435219958424568
                         Topic: 0.021*"party" + 0.021*"election" + 0.011*"assembly" + 0.010*"elected" + 0.009*"minist
er" + 0.009*"democratic" + 0.009*"politician" + 0.009*"president" + 0.008*"legislative" + 0.007*"council" Score: 0.016937196254730225 Topic: 0.007*"la" + 0.006*"finals" + 0.006*"spanish" + 0.005*"reorganisation" + 0.005*"el" +
Score: 0.016937196254730225
0.005*"del" + 0.005*"italian"
                       + 0.005*"fw" + 0.005*"fiba" + 0.004*"josé"
                          Topic: 0.007*"ship" + 0.006*"aircraft" + 0.006*"racing" + 0.005*"air" + 0.005*"navy" + 0.005
Score: 0.013441824354231358
       . A AAE*"can" . A AA4*
                         "chine" | Q QQ/*"ongino" | Q QQ/*"m
Score: 0.013441824354231358
                         Topic: 0.007*"ship" + 0.006*"aircraft" + 0.006*"racing" + 0.005*"air" + 0.005*"navy" + 0.005
web page3
0.005*"del" + 0.005*"italian" + 0.005*"fw" + 0.005*"fiba" + 0.004*"josé"
```

Observation:

First web page is related to a formation of team for the sports Lacrosse and topic 16(res earch & education) got highest score. Second link is about a Filipino drama film. Second link also got topic 16 as a highest scoring topic. Third link is about a historical region. It also got topic 16 as high scoring topic. I observed that one topic has more inclination towards three links. But I don't why like that happened.