Problem 1: Provide links of articles

Solution:

* <http://www.telegraph.co.uk/culture/art/art-reviews/11525401/Sonia-Delaunay-Tate-Modern-review-a-riot-of-hues.html>
* <http://www.telegraph.co.uk/culture/art/art-reviews/11527259/Velazquez-Grand-Palais-Paris-review-super.html>

Problem 2: Table for URI, extracted entity

Solution:

Note: The arrow points to the Person for whom the text is applicable to

|  |  |
| --- | --- |
| 1. uri | label |
| 1. http://d.opencalais.com/pershash-1/86c657d8-b4be-3eed-af55-47fe2c879a9e | Charles->"Charles" |
| 1. http://d.opencalais.com/pershash-1/24382f08-597b-3256-8b21-601507a8f846 | Nancy Cunard->"Nancy Cunard" |
| 1. http://d.opencalais.com/pershash-1/415034e6-21e3-32d3-9aed-6f1473493c23 | Marlene Dumas->"Marlene Dumas" |
| 1. http://d.opencalais.com/pershash-1/d37ce104-e574-3886-82c4-e3f75a81fc29 | Robert Delaunay->"Robert Delaunay" |
| 1. http://d.opencalais.com/pershash-1/d37ce104-e574-3886-82c4-e3f75a81fc29 | him->"Robert Delaunay" |
| 1. http://d.opencalais.com/pershash-1/d37ce104-e574-3886-82c4-e3f75a81fc29 | Robert->"Robert Delaunay" |
| 1. http://d.opencalais.com/pershash-1/d37ce104-e574-3886-82c4-e3f75a81fc29 | his->"Robert Delaunay" |
| 1. http://d.opencalais.com/pershash-1/d37ce104-e574-3886-82c4-e3f75a81fc29 | Robert->"Robert Delaunay" |
| 1. http://d.opencalais.com/pershash-1/d37ce104-e574-3886-82c4-e3f75a81fc29 | Robert->"Robert Delaunay" |
| 1. http://d.opencalais.com/pershash-1/d37ce104-e574-3886-82c4-e3f75a81fc29 | Robert->"Robert Delaunay" |
| 1. http://d.opencalais.com/pershash-1/d37ce104-e574-3886-82c4-e3f75a81fc29 | Robert->"Robert Delaunay" |
| 1. http://d.opencalais.com/pershash-1/d37ce104-e574-3886-82c4-e3f75a81fc29 | his->"Robert Delaunay" |
| 1. http://d.opencalais.com/pershash-1/c052e24b-eed0-3a51-9ae0-26db242df024 | Gloria Swanson->"Gloria Swanson" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Sonia Delaunay->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Delaunay->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Sonia Delaunay->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Delaunay->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Sonia->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | she->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | She->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | she->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Delaunay->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | she->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | she->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | she->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Delaunay->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | She->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Delaunay->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | She->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | she->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | She->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Delaunay->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Sonia->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | she->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | She->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Sonia->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | she->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Delaunay->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | She->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | she->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Delaunay->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | her->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | she->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | she->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/4b6fd697-34cc-30c4-b3af-a9765a79d791 | Delaunay->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/cabec86b-1ef2-36a3-9afd-4b58b6e470a7 | Odessa->"Odessa" |
| 1. http://d.opencalais.com/genericHasher-1/8a279b90-2170-3e5f-a909-c3b49316d0df | St Petersburg->"St Petersburg" |
| 1. http://d.opencalais.com/genericHasher-1/56fc901f-59a3-3278-addc-b0fc69b283e7 | Paris->"Paris" |
| 1. http://d.opencalais.com/genericHasher-1/56fc901f-59a3-3278-addc-b0fc69b283e7 | Paris->"Paris" |
| 1. http://d.opencalais.com/genericHasher-1/56fc901f-59a3-3278-addc-b0fc69b283e7 | Paris->"Paris" |
| 1. http://d.opencalais.com/genericHasher-1/56fc901f-59a3-3278-addc-b0fc69b283e7 | Paris->"Paris" |
| 1. http://d.opencalais.com/genericHasher-1/2e458a3d-9b69-33fb-9ce6-98ef05a4fe52 | the times Delaunay lived through->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/262b4961-0477-3bea-9312-cc8ba0d4a7b1 | Delaunay bridged->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/237a1b23-e7be-3efc-8d07-053612534c32 | Sheâ€™d often wear->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/f073c9f9-93f4-31e7-a909-ff541bd73709 | She spent the Second World War->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/9699ee11-db81-317b-a3db-16e10b510fca | She embraced fashion->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/777c7c2b-c8a8-3d64-a264-6a0a246463a7 | Delaunay get on->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/53e4116c-4d00-3ef3-adb7-d8c9c47f04a0 | she was a perpetual outsider->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/82c91d41-5fa0-32f6-acc6-1ca8fd39fce3 | She claimed her deep affinity for colour, moreover, stemmed from the â€œpure coloursâ€ of peasant weddings back in Ukraine.->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/1180c27a-ddb2-3a57-a6e5-04f995691388 | Robert died of cancer->"Robert Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/d03971b7-60a5-3b79-801b-90780b5cbd68 | Amsterdamâ€™s Metz & Co seized on her fashion designs->"Amsterdamâ€™s Metz & Co" |
| 1. http://d.opencalais.com/genericHasher-1/34969917-1896-3f29-ba9a-6fb601ac063f | she designed in patchwork colours->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/fdcdd296-d75c-303a-b72e-4ba9a67e9fcd | she always played down her own work->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/6d34a138-2c64-31b8-ab5f-21d348decda5 | she developed a theory->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/68edd6f2-efd3-30ac-8fe7-d39db4363015 | Her bleached yellow skin->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/084cf841-75c5-3dbf-812d-8be530b304b8 | She didnâ€™t give up art->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/841008b6-fc79-307b-9aad-b52abd5266f2 | she decorated in the late Sixties->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/5c68f9c9-3ca0-3dc4-b7fe-e576bcfe2824 | she worked->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/b60c0bea-4a90-3f1e-9be6-4ac3de13e62a | she rejected painting->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/ccc5251b-e2d1-3302-9042-0292f315fa92 | she needed an alternative means of funding->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/636bc105-0530-3a3a-bb9d-6e0729f9d54b | Robert put it->"Robert Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/b325947f-91ce-3f5d-a5b1-229416f9962d | It also saw Delaunay->"Sonia Delaunay" |
| 1. http://d.opencalais.com/genericHasher-1/57f4cef1-466c-36f3-a1ea-7b3583445570 | Delaunay had a privileged youth->"Sonia Delaunay" |
| 1. http://d.opencalais.com/pershash-1/9f1e2d56-8b00-3779-b0f9-af05bb037f5f | King Philip IV->"Philip IV" |
| 1. http://d.opencalais.com/pershash-1/9f1e2d56-8b00-3779-b0f9-af05bb037f5f | King Philip IV->"Philip IV" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | Diego VelÃ¡zquez->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | His->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | him->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | His->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | VelÃ¡zquez->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | him->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | His->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | he->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | His->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | him->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | VelÃ¡zquez->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | him->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | VelÃ¡zquez->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | the King->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | him->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | he->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | he->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | VelÃ¡zquez->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | his->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | her->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/pershash-1/a348acef-bdb8-3a5a-aa50-7f42fbf0e412 | her->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/genericHasher-1/0e13c7ea-337f-36ec-b788-7aeba90708e7 | It presents him->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/genericHasher-1/88e9a078-7eb4-34a0-83e7-ebbfd475e06b | Diego VelÃ¡zquez died->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/genericHasher-1/cf091c18-b759-31a9-9d60-583b1010f923 | His complex, enigmatic portraits made him->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/genericHasher-1/97a8be23-18d3-3d54-aff2-286cf1b7b756 | VelÃ¡zquez toned his style->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/genericHasher-1/24d02386-1843-3853-939c-2ee5b8c7a78c | him grew->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/genericHasher-1/54136ab0-15ab-3ae3-838d-56f1bc92be63 | he honed his critical eye->"Diego VelÃ¡zquez" |
| 1. http://d.opencalais.com/genericHasher-1/6029764f-c735-3146-ae4b-11a765bde35f | he quickly discovered a talent for naturalism->"Diego VelÃ¡zquez" |

Problem 3: Manually labelled table

|  |  |  |
| --- | --- | --- |
| 1. uri | manual\_label | False Negative |
| 1. Person | Marlene Dumas->"Marlene Dumas" | Yes |
| 1. Person | Sonia Delaunay->"Sonia Delaunay" | No |
| 1. Person | Matisse->"Matisse" | Yes |
| 1. Person | Malevich->"Malevich" | Yes |
| 1. Person | Delaunay->"Sonia Delaunay" | No |
| 1. Person | Sonia Delaunay->"Sonia Delaunay" | No |
| 1. Person | Delaunay->"Sonia Delaunay" | No |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | her->"prostitute" | Yes |
| 1. Person | Gauguin->"Gauguin" | Yes |
| 1. Person | Her->"prostitute" | Yes |
| 1. Person | Sonia->"Sonia Delaunay" | No |
| 1. Person | Robert Delaunay->"Robert Delaunay" | No |
| 1. Person | she->"Sonia Delaunay" | No |
| 1. Person | him->"Robert Delaunay" | No |
| 1. Person | She->"Sonia Delaunay" | No |
| 1. Person | she->"Sonia Delaunay" | No |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | Charles->"Charles" | No |
| 1. Person | Picasso->"Picasso" | Yes |
| 1. Person | Braque->"Braque" | Yes |
| 1. Person | Delaunay->"Sonia Delaunay" | No |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | husband->"Robert Delaunay" | Yes |
| 1. Person | she->"Sonia Delaunay" | No |
| 1. Person | she->"Sonia Delaunay" | No |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | Robert->"Robert Delaunay" | No |
| 1. Person | his->"Robert Delaunay" | No |
| 1. Person | she->"Sonia Delaunay" | No |
| 1. Person | Delaunay->"Sonia Delaunay" | No |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | Diaghilev->"Diaghilev" | Yes |
| 1. Person | She->"Sonia Delaunay" | No |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | Delaunay->"Sonia Delaunay" | No |
| 1. Person | She->"Sonia Delaunay" | No |
| 1. Person | she->"Sonia Delaunay" | No |
| 1. Person | She->"Sonia Delaunay" | No |
| 1. Person | Robert->"Robert Delaunay" | No |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | Gloria Swanson->"Gloria Swanson" | No |
| 1. Person | Nancy Cunard->"Nancy Cunard" | No |
| 1. Person | Delaunay->"Sonia Delaunay" | No |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | Robert->"Robert Delaunay" | No |
| 1. Person | Sonia->"Sonia Delaunay" | No |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | Robert->"Robert Delaunay" | No |
| 1. Person | she->"Sonia Delaunay" | No |
| 1. Person | She->"Sonia Delaunay" | No |
| 1. Person | Robert->"Robert Delaunay" | No |
| 1. Person | Sonia->"Sonia Delaunay" | No |
| 1. Person | Her->"Sonia Delaunay" | No |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | she->"Sonia Delaunay" | No |
| 1. Person | Delaunay->"Sonia Delaunay" | No |
| 1. Person | She->"Sonia Delaunay" | No |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | she->"Sonia Delaunay" | No |
| 1. Person | Picasso->"Picasso" | Yes |
| 1. Person | his->"Picasso" | Yes |
| 1. Person | Delaunay->"Sonia Delaunay" | No |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | Klee->"Klee" | Yes |
| 1. Person | Kandinsky->"Kandinsky" | Yes |
| 1. Person | she->"Sonia Delaunay" | No |
| 1. Person | she->"Sonia Delaunay" | No |
| 1. Person | Delaunay->"Sonia Delaunay" | No |
| 1. City | Odessa->"Odessa" | No |
| 1. City | St Petersburg->"St Petersburg" | No |
| 1. City | Paris->"Paris" | No |
| 1. City | Paris->"Paris" | No |
| 1. City | Paris->"Paris" | No |
| 1. City | Paris->"Paris" | No |
| 1. City | Amsterdam->"Amsterdam" | Yes |
| 1. Organization | Tate->"Tate" | Yes |
| 1. Organization | Tate Modern->"Tate Modern" | Yes |
| 1. Organization | Tate Modern->"Tate Modern" | Yes |
| 1. Organization | Tate->"Tate" | Yes |
| 1. Organization | Tate->"Tate" | Yes |
| 1. Generic | artists have->"artists" | Yes |
| 1. Generic | Delaunay get on->"Sonia Delaunay" | No |
| 1. Generic | who was Sonia Delaunay->"Sonia Delaunay" | Yes |
| 1. Generic | Delaunay had a privileged youth->"Sonia Delaunay" | No |
| 1. Generic | prostitute detached from her boudoir backdrop->"prostitute" | Yes |
| 1. Generic | Her bleached yellow skin->"prostitute" | Yes |
| 1. Generic | she rejected painting->"Sonia Delaunay" | No |
| 1. Generic | She didn‰Ûªt give up art->"Sonia Delaunay" | No |
| 1. Generic | she made for her infant son->"Sonia Delaunay" | Yes |
| 1. Generic | It also saw Delaunay->"Sonia Delaunay" | No |
| 1. Generic | she developed a theory->"Sonia Delaunay" | No |
| 1. Generic | she always played down her own work->"Sonia Delaunay" | No |
| 1. Generic | She claimed her deep affinity for colour, moreover, stemmed from the ‰ÛÏpure colours‰Û of peasant weddings back in Ukraine.->"Sonia Delaunay" | No |
| 1. Generic | She embraced fashion->"Sonia Delaunay" | No |
| 1. Generic | she designed in patchwork colours->"Sonia Delaunay" | No |
| 1. Generic | She‰Ûªd often wear->"Sonia Delaunay" | No |
| 1. Generic | Robert put it->"Robert Delaunay" | No |
| 1. Generic | Metz & Co seized on her fashion designs->"Metz & Co" | Yes |
| 1. Generic | Delaunay bridged->"Sonia Delaunay" | No |
| 1. Generic | her move into design->"Sonia Delaunay" | Yes |
| 1. Generic | bankrolling her and Robert->"Sonia Delaunay, Robert Delaunay" | Yes |
| 1. Generic | she needed an alternative means of funding->"Sonia Delaunay" | No |
| 1. Generic | She didn‰Ûªt completely give up painting->"Sonia Delaunay" | Yes |
| 1. Generic | Robert died of cancer->"Robert Delaunay" | No |
| 1. Generic | Sonia returned to painting->"Sonia Delaunay" | Yes |
| 1. Generic | Her palette grew->"Sonia Delaunay" | Yes |
| 1. Generic | she worked->"Sonia Delaunay" | No |
| 1. Generic | the times Delaunay lived through->"Sonia Delaunay" | No |
| 1. Generic | She spent the Second World War->"Sonia Delaunay" | No |
| 1. Generic | she‰Ûªd shown->"Sonia Delaunay" | Yes |
| 1. Generic | Delaunay was celebrating->"Sonia Delaunay" | Yes |
| 1. Generic | she was a perpetual outsider->"Sonia Delaunay" | No |
| 1. Generic | she decorated in the late Sixties->"Sonia Delaunay" | No |
| 1. Person | Diego VelÃ¡zquez->"Diego VelÃ¡zquez" | No |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | His->"Diego VelÃ¡zquez" | No |
| 1. Person | him->"Diego VelÃ¡zquez" | No |
| 1. Person | Manet->"Manet" | Yes |
| 1. Person | Picasso->"Picasso" | Yes |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | His->"Diego VelÃ¡zquez" | No |
| 1. Person | King Philip IV->"Philip IV" | No |
| 1. Person | artist->"Diego VelÃ¡zquez" | Yes |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | VelÃ¡zquez->"Diego VelÃ¡zquez" | No |
| 1. Person | him->"Diego VelÃ¡zquez" | No |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | His->"Diego VelÃ¡zquez" | No |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | King Philip IV->"Philip IV" | No |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | he->"Diego VelÃ¡zquez" | No |
| 1. Person | His->"Diego VelÃ¡zquez" | No |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | him->"Diego VelÃ¡zquez" | No |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | VelÃ¡zquez->"Diego VelÃ¡zquez" | No |
| 1. Person | drunken boy->"boy" | Yes |
| 1. Person | the viewer->"viewer" | Yes |
| 1. Person | his->"boy" | Yes |
| 1. Person | him->"boy" | Yes |
| 1. Person | his->"boy" | Yes |
| 1. Person | VelÃ¡zquez->"Diego VelÃ¡zquez" | No |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | the King->"Philip IV" | Yes |
| 1. Person | him->"Diego VelÃ¡zquez" | No |
| 1. Person | he->"Diego VelÃ¡zquez" | No |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | Pope Innocent X->"Pope Innocent X" | Yes |
| 1. Person | he->"Diego VelÃ¡zquez" | No |
| 1. Person | his->"Pope Innocent X" | Yes |
| 1. Person | VelÃ¡zquez->"Diego VelÃ¡zquez" | No |
| 1. Person | the viewer->"the viewer" | Yes |
| 1. Person | his->"Diego VelÃ¡zquez" | No |
| 1. Person | her->"Venus" | Yes |
| 1. Person | her->"Venus" | Yes |
| 1. Generic | Diego VelÃ¡zquez died->"Diego VelÃ¡zquez" | No |
| 1. Generic | His complex, enigmatic portraits made him->"Diego VelÃ¡zquez" | No |
| 1. Generic | Manet and Picasso both painted->"Manet, Picasso" | Yes |
| 1. Generic | It presents him->"Diego VelÃ¡zquez" | No |
| 1. Generic | he quickly discovered a talent for naturalism->"Diego VelÃ¡zquez" | No |
| 1. Generic | VelÃ¡zquez toned his style->"Diego VelÃ¡zquez" | No |
| 1. Generic | the Kingâ€™s confidence in him grew->"Philip IV" | Yes |
| 1. Generic | he honed his critical eye->"Diego VelÃ¡zquez" | No |

Problem 4: Calais labelled table

|  |  |  |
| --- | --- | --- |
| 1. uri | Calais\_label | True Positive |
| 1. Person | Charles->"Charles" | Yes |
| 1. Person | Nancy Cunard->"Nancy Cunard" | Yes |
| 1. Person | Marlene Dumas->"Marlene Dumas" | Yes |
| 1. Person | Robert Delaunay->"Robert Delaunay" | Yes |
| 1. Person | him->"Robert Delaunay" | Yes |
| 1. Person | Robert->"Robert Delaunay" | Yes |
| 1. Person | his->"Robert Delaunay" | Yes |
| 1. Person | Robert->"Robert Delaunay" | Yes |
| 1. Person | Robert->"Robert Delaunay" | Yes |
| 1. Person | Robert->"Robert Delaunay" | Yes |
| 1. Person | Robert->"Robert Delaunay" | Yes |
| 1. Person | his->"Robert Delaunay" | No |
| 1. Person | Gloria Swanson->"Gloria Swanson" | Yes |
| 1. Person | Sonia Delaunay->"Sonia Delaunay" | Yes |
| 1. Person | Delaunay->"Sonia Delaunay" | Yes |
| 1. Person | Sonia Delaunay->"Sonia Delaunay" | Yes |
| 1. Person | Delaunay->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | Yes |
| 1. Person | Her->"Sonia Delaunay" | No |
| 1. Person | Sonia->"Sonia Delaunay" | Yes |
| 1. Person | she->"Sonia Delaunay" | Yes |
| 1. Person | She->"Sonia Delaunay" | Yes |
| 1. Person | she->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | Yes |
| 1. Person | Delaunay->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | Yes |
| 1. Person | she->"Sonia Delaunay" | Yes |
| 1. Person | she->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | Yes |
| 1. Person | she->"Sonia Delaunay" | Yes |
| 1. Person | Delaunay->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | Yes |
| 1. Person | She->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | Yes |
| 1. Person | Delaunay->"Sonia Delaunay" | Yes |
| 1. Person | She->"Sonia Delaunay" | Yes |
| 1. Person | she->"Sonia Delaunay" | Yes |
| 1. Person | She->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | Yes |
| 1. Person | Delaunay->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | Yes |
| 1. Person | Sonia->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | Yes |
| 1. Person | she->"Sonia Delaunay" | Yes |
| 1. Person | She->"Sonia Delaunay" | Yes |
| 1. Person | Sonia->"Sonia Delaunay" | Yes |
| 1. Person | Her->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | Yes |
| 1. Person | she->"Sonia Delaunay" | Yes |
| 1. Person | Delaunay->"Sonia Delaunay" | Yes |
| 1. Person | She->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | Yes |
| 1. Person | she->"Sonia Delaunay" | Yes |
| 1. Person | Delaunay->"Sonia Delaunay" | Yes |
| 1. Person | her->"Sonia Delaunay" | No |
| 1. Person | she->"Sonia Delaunay" | Yes |
| 1. Person | she->"Sonia Delaunay" | Yes |
| 1. Person | Delaunay->"Sonia Delaunay" | Yes |
| 1. City | Odessa->"Odessa" | Yes |
| 1. City | St Petersburg->"St Petersburg" | Yes |
| 1. City | Paris->"Paris" | Yes |
| 1. City | Paris->"Paris" | Yes |
| 1. City | Paris->"Paris" | Yes |
| 1. City | Paris->"Paris" | Yes |
| 1. Generic | the times Delaunay lived through->"Sonia Delaunay" | Yes |
| 1. Generic | Delaunay bridged->"Sonia Delaunay" | Yes |
| 1. Generic | She‰Ûªd often wear->"Sonia Delaunay" | Yes |
| 1. Generic | She spent the Second World War->"Sonia Delaunay" | Yes |
| 1. Generic | She embraced fashion->"Sonia Delaunay" | Yes |
| 1. Generic | Delaunay get on->"Sonia Delaunay" | Yes |
| 1. Generic | she was a perpetual outsider->"Sonia Delaunay" | Yes |
| 1. Generic | She claimed her deep affinity for colour, moreover, stemmed from the ‰ÛÏpure colours‰Û of peasant weddings back in Ukraine.->"Sonia Delaunay" | Yes |
| 1. Generic | Robert died of cancer->"Robert Delaunay" | Yes |
| 1. Generic | Amsterdam‰Ûªs Metz & Co seized on her fashion designs->"Amsterdam‰Ûªs Metz & Co" | No |
| 1. Generic | she designed in patchwork colours->"Sonia Delaunay" | Yes |
| 1. Generic | she always played down her own work->"Sonia Delaunay" | Yes |
| 1. Generic | she developed a theory->"Sonia Delaunay" | Yes |
| 1. Generic | Her bleached yellow skin->"Sonia Delaunay" | No |
| 1. Generic | She didn‰Ûªt give up art->"Sonia Delaunay" | Yes |
| 1. Generic | she decorated in the late Sixties->"Sonia Delaunay" | Yes |
| 1. Generic | she worked->"Sonia Delaunay" | Yes |
| 1. Generic | she rejected painting->"Sonia Delaunay" | Yes |
| 1. Generic | she needed an alternative means of funding->"Sonia Delaunay" | Yes |
| 1. Generic | Robert put it->"Robert Delaunay" | Yes |
| 1. Generic | It also saw Delaunay->"Sonia Delaunay" | Yes |
| 1. Generic | Delaunay had a privileged youth->"Sonia Delaunay" | Yes |
| 1. Person | King Philip IV->"Philip IV" | Yes |
| 1. Person | King Philip IV->"Philip IV" | Yes |
| 1. Person | Diego VelÌÁzquez->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | His->"Diego VelÌÁzquez" | Yes |
| 1. Person | him->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | His->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | VelÌÁzquez->"Diego VelÌÁzquez" | Yes |
| 1. Person | him->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | His->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | he->"Diego VelÌÁzquez" | Yes |
| 1. Person | His->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | him->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | VelÌÁzquez->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | No |
| 1. Person | him->"Diego VelÌÁzquez" | No |
| 1. Person | his->"Diego VelÌÁzquez" | No |
| 1. Person | VelÌÁzquez->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | the King->"Diego VelÌÁzquez" | No |
| 1. Person | him->"Diego VelÌÁzquez" | Yes |
| 1. Person | he->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | he->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | No |
| 1. Person | VelÌÁzquez->"Diego VelÌÁzquez" | Yes |
| 1. Person | his->"Diego VelÌÁzquez" | Yes |
| 1. Person | her->"Diego VelÌÁzquez" | No |
| 1. Person | her->"Diego VelÌÁzquez" | No |
| 1. Generic | It presents him->"Diego VelÌÁzquez" | Yes |
| 1. Generic | Diego VelÌÁzquez died->"Diego VelÌÁzquez" | Yes |
| 1. Generic | His complex, enigmatic portraits made him->"Diego VelÌÁzquez" | Yes |
| 1. Generic | VelÌÁzquez toned his style->"Diego VelÌÁzquez" | Yes |
| 1. Generic | him grew->"Diego VelÌÁzquez" | No |
| 1. Generic | he honed his critical eye->"Diego VelÌÁzquez" | Yes |
| 1. Generic | he quickly discovered a talent for naturalism->"Diego VelÌÁzquez" | Yes |

Problem 5: F-Score

Solution:

Precision: 122/135 = 0.9037 = 90.37%

Recall : 122/170 = 0.7176 = 71.76%

F-Score : 0.8 = 80%

Explanation:

The algorithm used in opencalais does a good job of extracting names when the full names are given. It then proceeds to associate all pronouns to such found names. Similarly, it also matches all cities well because it is easy to identify a city by looking up the word in a dictionary of cities. The algo finds all obvious generic relations of the simple form, which have subject verb object or subject verb. It wrongly associates pronouns in several cases to an identified person, when the pronoun is actually associated to a general person like “his->the boy”, “her->the prostitute”. Due to this it also misidentifies generic relations where the sentence contains a pronoun but is associated to a general subject/object. In such cases, it associates the relation to an already identified person when the relation may not refer to the person at all. Example: In “Her bleached yellow skin” the relation and “Her” is associated to a prostitute who is potrayed in a painting but opencalais associates it “Sonia Delauney”, the painter. It also fails in every case where the sentence is of the form subject+verb+preposition+object. It also fails where the subject/object is several people like in the case of “bankrolling her and Robert” where both “her and Robert” are the object. Another major flaw I discovered was it does not have a sense of gender. It assosciates “Diego VelÌÁzquez” to both his and her when its algorithm should prevent mapping diego to her when it has already been mapped to his.

Although the algo has good precision it has average recall because it has one major flaw among several. Its biggest flaw is it fails to identify people where only the first name or only the last name is provided or the person is an authority like Pope Innocent X because it identifies a person only if its full name is provided. It chooses to ignore such names. It also fails to identify the organization “Tate Modern” and cities that have an apostrophe like “Amsterdam’s”.