

Partie Logique (Prolog)

**DOCUMENTATION/ EXPLICATION :**

- ✓ Pour executer le programme , il faut donner le nom du fichier contenant l'histogramme de l'image requête , son chemin relatif ou bien son chemin complet , exemple :

```
?- similarity_search('q00.jpg.txt',S).
```

Ou :

```
?- similarity_search('queryImages/q01.jpg.txt',S).
```

Ou bien :

```
?-
```

```
similarity_search('C:/Users/Ordinateur/Documents/computer_science/paradigmes/devoir/similarity_image_prolog/queryImages/q02.jpg.txt',S).
```

**Résultats obtenus pour chaque image requête :**

NB : les résultats obtenus avec ce programme sont les mêmes que ceux obtenus par le programme orienté objet .

```
?- similarity_search('q00.jpg.txt',S).
```

```
S = [('1144.jpg.txt', 0.9999999999999998),  
('3806.jpg.txt', 0.707453703703704),  
('3714.jpg.txt', 0.668431712962963),  
('3756.jpg.txt', 0.6620254629629629),  
('2462.jpg.txt', 0.6491030092592592)] ;
```

```
?- similarity_search('queryImages/q01.jpg.txt',S).
```

```
S = [('3588.jpg.txt', 0.5703645833333334),  
('2536.jpg.txt', 0.5612557870370372),  
('3553.jpg.txt', 0.5365624999999999),  
('1875.jpg.txt', 0.5282986111111111),  
('2592.jpg.txt', 0.5049710648148149)]
```

```
?-
```

```
similarity_search('C:/Users/Ordinateur/Documents/computer_science/paradigmes/devoir/similarity_image_prolog/queryImages/q02.jpg.txt',S).
```

```
S = [('1091.jpg.txt', 0.654351851851852),  
('3005.jpg.txt', 0.6425925925925926),  
('850.jpg.txt', 0.6293344907407409),  
('3728.jpg.txt', 0.6242418981481477),  
('1090.jpg.txt', 0.6235821759259259)]
```

```
?-
```

similarity\_search('queryImages/q03.jpg.txt',S).

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S = [('1255.jpg.txt', 0.5487037037037037),  
, ('3532.jpg.txt', 0.5420949074074074),  
( '4507.jpg.txt', 0.5384143518518519),  
( '692.jpg.txt', 0.5370486111111111),  
( '4737.jpg.txt', 0.5314583333333334)] .

?- similarity\_search('queryImages/q04.jpg.txt',S).

S = [('1799.jpg.txt', 0.8465046296296295),  
( '848.jpg.txt', 0.493396990740741),  
( '4261.jpg.txt', 0.4890682870370373),  
( '1800.jpg.txt', 0.4714351851851855),  
( '1937.jpg.txt', 0.4680844907407409)]

?- similarity\_search('queryImages/q05.jpg.txt',S).

S = [('2223.jpg.txt', 0.6143576388888888),  
( '3091.jpg.txt', 0.600127314814815),  
( '2550.jpg.txt', 0.5303530092592593),  
( '2883.jpg.txt', 0.5288252314814816),  
( '2901.jpg.txt', 0.522957175925926)]

?- similarity\_search('queryImages/q06.jpg.txt',S).

S = [('2278.jpg.txt', 0.775943287037037),  
( '2224.jpg.txt', 0.7166724537037038),  
( '1108.jpg.txt', 0.7126793981481481),  
( '1917.jpg.txt', 0.6976967592592592),  
( '3806.jpg.txt', 0.6947453703703704)]

?- similarity\_search('queryImages/q07.jpg.txt',S).

S = [('2377.jpg.txt', 1.0),  
( '2379.jpg.txt', 0.7670370370370372),  
( '2079.jpg.txt', 0.639664351851852),  
( '1653.jpg.txt', 0.6341377314814816),  
( '1896.jpg.txt', 0.622175925925926)]

?- similarity\_search('queryImages/q08.jpg.txt',S).

S = [('2587.jpg.txt', 0.723240740740741),  
( '1837.jpg.txt', 0.7008912037037036),  
( '2586.jpg.txt', 0.6713831018518517),  
( '1515.jpg.txt', 0.6691203703703701),  
( '1217.jpg.txt', 0.667974537037037)]

?- similarity\_search('queryImages/q09.jpg.txt',S).

S = [('2839.jpg.txt', 0.7902141203703702),  
( '3414.jpg.txt', 0.5090219907407406),  
( '2617.jpg.txt', 0.4510706018518519),  
( '4363.jpg.txt', 0.4242534722222222),  
( '4816.jpg.txt', 0.3847106481481482)]

?- similarity\_search('queryImages/q10.jpg.txt',S).

S = [('2976.jpg.txt', 0.7448495370370368),  
( '2971.jpg.txt', 0.6602488425925923),

```
('3108.jpg.txt', 0.6443113425925926),  
('2194.jpg.txt', 0.641255787037037),  
('4118.jpg.txt', 0.6342650462962962)]
```

```
?- similarity_search('queryImages/q11.jpg.txt',S).  
S = [('3017.jpg.txt', 0.6110358796296296),  
('3660.jpg.txt', 0.5757696759259259),  
('2411.jpg.txt', 0.5699594907407405),  
('1010.jpg.txt', 0.5557928240740738),  
('2067.jpg.txt', 0.5535937499999999)]
```

```
?- similarity_search('queryImages/q12.jpg.txt',S).  
S = [('3135.jpg.txt', 1.0),  
('3133.jpg.txt', 0.6417650462962963),  
('2447.jpg.txt', 0.5733854166666664),  
('4429.jpg.txt', 0.5432870370370371),  
('2964.jpg.txt', 0.512349537037037)]
```

```
?- similarity_search('queryImages/q13.jpg.txt',S).  
S = [('3225.jpg.txt', 0.9999999999999994),  
('2083.jpg.txt', 0.49487268518518523),  
('2082.jpg.txt', 0.4945370370370373),  
('2078.jpg.txt', 0.48898148148148146),  
('2607.jpg.txt', 0.47237847222222196)] .
```

```
?- similarity_search('queryImages/q14.jpg.txt',S).  
S = [('2193.jpg.txt', 0.44631365740740736),  
('3108.jpg.txt', 0.38057291666666665),  
('3318.jpg.txt', 0.37972800925925926),  
('4028.jpg.txt', 0.3712037037037037),  
('3085.jpg.txt', 0.37054398148148143)] .
```

```
?- similarity_search('queryImages/q15.jpg.txt',S).  
S = [('4756.jpg.txt', 0.7374768518518519),  
('2462.jpg.txt', 0.7236631944444442),  
('3756.jpg.txt', 0.6971238425925923),  
('908.jpg.txt', 0.6936805555555557),  
('3675.jpg.txt', 0.692372685185185)] .
```