**Cosine Similarity:**

**Put CosSim.java and stemming.java in package named similarity**

**Input:16569.full.txt(seedpaper) and folder containing level papers.**

**Output: l1-l8,co1-co7filterednodes.txt**

**Eliminate references:**

**Ref.java**

**Eliminate references between brackets within paragraphs:**

**Charref.java**

**Term Frequency:**

**MaxDuplicateWordCount.java**

**Blending:**

**Blend.java**

**Input: b1.txt b2.txt**

**Output: blending-output**

**Graph:**

**Input: g1nodes.txt for G1 graph**

**Output:g1-output**

**Input: g2nodes.txt for G2 graph**

**Output:g2-output**

**Input: g3nodes.txt for G3 graph**

**Output:g3-output**

**Paths:**

**Test.java**

**Input: g3nodes.txt**

**Output: 000-056paths.txt**

**Longest Paths:**

**PathLength.java**

**Input: g3nodes.txt**

**Multiple:**

**Multiple.java**

**Input: g3nodes.txt**

**Popularity:**

**Popularity.java**

**Input: pathappend56**

**Output: popularity-output**

**Score:**

**Score.java**

**Input: pathappend56**

**Output: score-output**

**Ranking:**

**RankPath.java**

**Output: rankpaths.txt**

**Split.java for split the path to nodes**

**Input: path56**

**Append.java for appending zeros**

**Input: pathappend56**

**Sort.java for sorting nodes in path**

**Input: pathsplit56**

**Edge Reversal:**

**Backward.java**

**Input:g3nodes.txt**

**Output: g3rev.txt**

**Optimization approach-I:**

**Optimised Paths:**

**Output:** **pathsafteroptimization1.txt**

**Traversalcount:**

**Traversalcount.java**

**Input:opaths.txt**

**Refinededges.java and Refinededges1.java for checking edges whether both side of edge is filtered.**

**Forward paths of optimization1:**

**LevelwiseFiltration.java**

**Input: appendbfs**

**Output:** **opt1filtration.txt**

**Backward optimized:**

**Edge reversal of edges from optimisation1 and cosine similarity with leaf(056) .**

**Output:056filtered.txt**

**Optimization approach-2&3, best semantic path in approach-2&3 folder.**

**Country contribution for hirsch:**

**Input:country.txt**

**Input:countrycontribution.txt**

**List of all possible paths in G3:**

**Input:g3nodes.txt**

**Output:allpaths.txt**

**List of all paths through Optimisation approach-1,2,3**

**Input: integration folder**

**Output: integratedpaths-all3approaches.txt**