APPENDIX 1

RDF SCHEMA FOR USER QUESTIONS

1. What is the minimum value of stack?
   SELECT ?i
   WHERE { ?subject :has_variable ?o .
             ?o :has_minvalue ?i }

2. What are the variables used in stack and queue?
   SELECT ?subject ?o
   WHERE { ?subject :has_variable ?o }

3. What are the subtypes of datastructure model?
   SELECT ?subject ?o
   WHERE { ?subject :isa_subtypeof ?o } ORDERBY ?o

4. What are the types of search in Graph?
   SELECT ?s ?o
   WHERE { ?s :has_type_search ?o }

5. What the types of sorting in DS?
   SELECT ?s
   WHERE { ?s :has_value "sort" }

6. What are the types of internal sorting?
   SELECT ?s
   WHERE { ?s :has_value "internal" }

7. In which situation stack is empty?
   SELECT ?i ?j
   WHERE { ?s :has_variable ?i .
            ?s :has_value "stack" }
8. **In which situation queue is empty?**

   SELECT ?object ?i
   WHERE { ?subject :has_variable ?object.
   ?object :has_minvalue ?i.
   ?subject :has_value "queue" }

9. **What are the variables used for queue implementation**

   SELECT ?o
   WHERE { ?subject :has_value "queue".
   ?subject :has_variable ?o }

   OR

   SELECT ?o ?x
   WHERE { ?s :has_value "queue".
   ?o :is_ins_varof ?s.
   ?x :is_del_varof ?s }

   OR

   SELECT ?o ?x
   WHERE { ?s :has_value "queue".
   ?o :is_ins_varof ?s.
   OPTIONAL {?x :is_del_varof ?s} }

10. **In which Data structure BFS is used?**

    SELECT ?o
    WHERE { ?s :isa_typesearch_of ?o.
    ?s :has_value "bfs" }

11. **What are the types of tree?**

    SELECT ?s
    WHERE { ?s :isa_typeof ?o.
    ?o :has_value "tree" }

12. **What are the concepts are not same in data structure?**

    SELECT ?s ?o
    WHERE { ?s :isnot_relatedto ?o }

13. **Is bubble sort an external sort?**
14. What are the operations of stack?

SELECT ?i
WHERE { ?s :has_operation ?i .
?s :has_value "stack" }

15. What are the operations of linked list?

SELECT ?i
WHERE { ?s :has_operation ?i .
?s :has_value "linked list" }

16. What is the minimum and maximum range of stack?

SELECT ?i ?j
WHERE { ?x :has_minvalue ?i .
?x :has_maxvalue ?j .
?s :has_variable ?x .
?s :has_value "stack" }

17. What is the minimum and maximum range of linked list with stack implementation?

SELECT ?i ?j
WHERE { ?x :has_minvalue ?i .
?x :has_maxvalue ?j .
?x :has_value "linked list" }

18. What are the implementation of stack?

SELECT ?object
20. **What are the applications of stack?**

SELECT ?application
WHERE { ?subject :has_applicationof ?application .
?subject :has_value "stack" }

21. **Which Data Structure is used to implement evaluation of postfix expression?**

SELECT ?ds
?subject :has_value "postfix_eval" }

22. **What is Stack?**

SELECT ?ds
WHERE
?subject :has_value "stack". }

23. **List out implementation type and variables used in different data structure.**

SELECT ?implementation ?DS ?var
WHERE { {?implementation :has_implementation ?DS .}
UNION { ?DS :has_variable ?var .} }
If the stack max size is >50, then the value will be displayed. Otherwise it’ll not be displayed.

25. **How to avoid multiple display of same value?**

```sql
SELECT DISTINCT ?z
WHERE {
  ?z :has_variable ?y.
  ?y :has_maxvalue ?x.
  FILTER(?x>="50")
}
ORDERBY ?z
```