

## Assignment 2 - Ecse 427

### Part 0

- Keith MacKinnon (260460985)
- Peter Henderson (260457751)

Q1: Peter

Q2: Keith

Q3: Keith (sneak paths), Peter (conformance)

Q4: Keith (sneak paths & refactoring), Peter (conformance)

Q5: Peter, Keith (coverage)

Q6: Peter

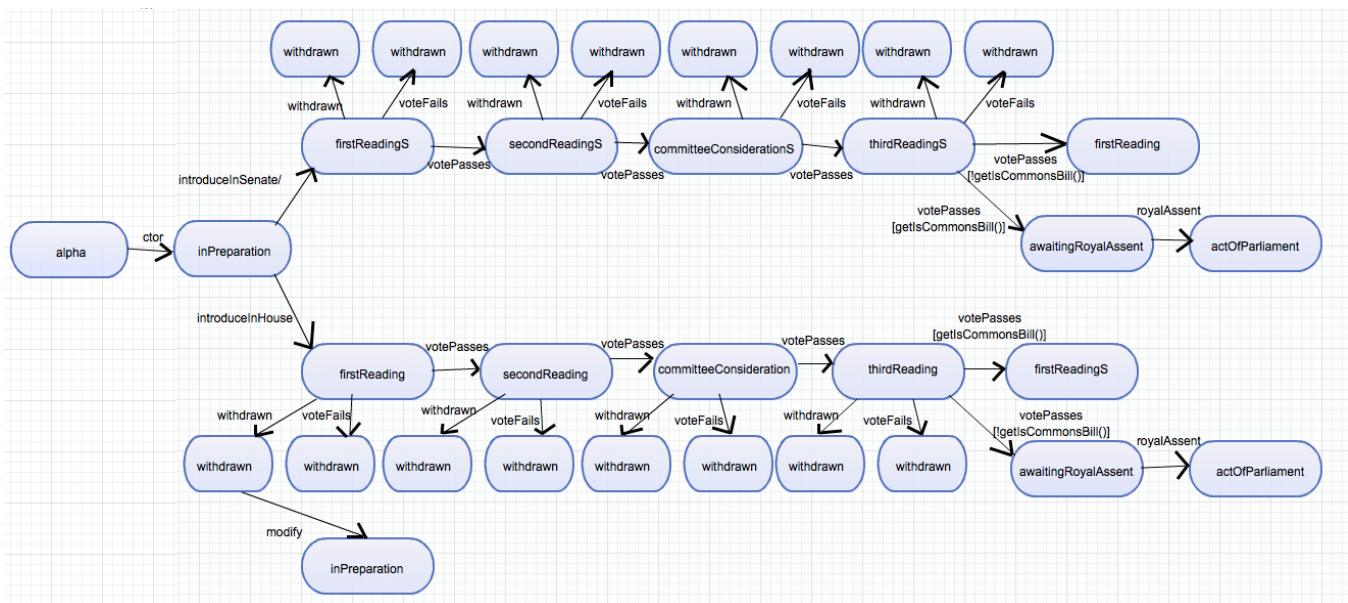
Q7: Peter (issues caught by conformance TCs)

Q8: Peter

### Part 1 - State Based Testing

#### Question 1

\* N.B. for better resolution, see the attached file.



#### Question 2

*Note: there is some undocumented code and hidden states/transitions, but these are not considered sneak paths per the slides, but rather trap doors, etc. This includes the voteDenied() event and the finalReading state of the House states.*

Test ID	State	Event	Condition
1	inPreparation	modify	-
2	inPreparation	withdraw	-

3	inPreparation	voteFails	-
4	inPreparation	votePasses	-
5	inPreparation	royalAssent	-
6	firstReading	modify	-
7	firstReading	royalAssent	-
8	firstReading	introduceInHouse	-
9	firstReading	introduceInSenate	-
10	secondReading	modify	-
11	secondReading	royalAssent	-
12	secondReading	introduceInHouse	-
13	secondReading	introduceInSenate	-
14	committeeConsideration	modify	-
15	committeeConsideration	royalAssent	-
16	committeeConsideration	introduceInHouse	-
17	committeeConsideration	introduceInSenate	-
18	thirdReading	modify	-
19	thirdReading	royalAssent	-
20	thirdReading	introduceInHouse	-
21	thirdReading	introduceInSenate	-
22	withdrawn	votePasses	-
23	withdrawn	voteFails	-
24	withdrawn	royalAssent	-
25	withdrawn	introduceInHouse	-
26	withdrawn	introduceInSenate	-
27	withdrawn	withdraw	-
28	firstReadingS	modify	-
29	firstReadingS	royalAssent	-
30	firstReadingS	introduceInHouse	-
31	firstReadingS	introduceInSenate	-
32	secondReadingS	modify	-
33	secondReadingS	royalAssent	-

34	secondReadingS	introduceInHouse	-
35	secondReadingS	introduceInSenate	-
36	committeeConsiderationS	modify	-
37	committeeConsiderationS	royalAssent	-
38	committeeConsiderationS	introduceInHouse	-
39	committeeConsiderationS	introduceInSenate	-
40	thirdReadingS	modify	-
41	thirdReadingS	royalAssent	-
42	thirdReadingS	introduceInHouse	-
43	thirdReadingS	introduceInSenate	-
44	awaitingRoyalAssent	modify	-
45	awaitingRoyalAssent	withdraw	-
46	awaitingRoyalAssent	voteFails	-
47	awaitingRoyalAssent	votePasses	-
48	awaitingRoyalAssent	introduceInHouse	-
49	awaitingRoyalAssent	introduceInSenate	-
50	actOfParliament	modify	-
51	actOfParliament	withdraw	-
52	actOfParliament	voteFails	-
53	actOfParliament	votePasses	-
54	actOfParliament	introduceInHouse	-
55	actOfParliament	introduceInSenate	-
56	actOfParliament	royalAssent	-

### Question 3

*\*N.B. The first 20.x IDs are for conformance tests, and the rest are for sneak paths.*

ID	Start State	Event / Condition	Reaction	New State
1.1	-	constructor	-	inPreparation
1.2	inPreparation	introduceInSenate	isCommonsBill=false	firstReadingS
1.3	firstReadingS	withdrawn	-	withdrawn

2.1	-	constructor	-	inPreparation
2.2	inPreparation	introduceInSenate	isCommonsBill=false	firstReadingS
2.3	firstReadingS	voteFails	-	withdrawn
3.1	-	constructor	-	inPreparation
3.2	inPreparation	introduceInSenate	isCommonsBill=false	firstReadingS
3.3	firstReadingS	votePasses	-	secondReadingS
3.4	secondReadingS	withdrawn	-	withdrawn
4.1	-	constructor	-	inPreparation
4.2	inPreparation	introduceInSenate	isCommonsBill=false	firstReadingS
4.3	firstReadingS	votePasses	-	secondReadingS
4.4	secondReadingS	voteFails	-	withdrawn
5.1	-	constructor	-	inPreparation
5.2	inPreparation	introduceInSenate	isCommonsBill=false	firstReadingS
5.3	firstReadingS	votePasses	-	secondReadingS
5.4	secondReadingS	votePasses	-	committeeConsiderationS
5.5	committeeConsiderationS	withdrawn	-	withdrawn
6.1	-	constructor	-	inPreparation
6.2	inPreparation	introduceInSenate	isCommonsBill=false	firstReadingS
6.3	firstReadingS	votePasses	-	secondReadingS
6.4	secondReadingS	votePasses	-	committeeConsiderationS
6.5	committeeConsiderationS	voteFails	-	withdrawn
7.1	-	constructor	-	inPreparation
7.2	inPreparation	introduceInSenate	isCommonsBill=false	firstReadingS
7.3	firstReadingS	votePasses	-	secondReadingS
7.4	secondReadingS	votePasses	-	committeeConsiderationS
7.5	committeeConsiderationS	votePasses	-	thirdReadingS
7.6	thirdReadingS	withdrawn	-	withdrawn
8.1	-	constructor	-	inPreparation

8.2	inPreparation	introduceInSenate	isCommonsBill=false	firstReadingS
8.3	firstReadingS	votePasses	-	secondReadingS
8.4	secondReadingS	votePasses	-	committeeConsiderationS
8.5	committeeConsiderationS	votePasses	-	thirdReadingS
8.6	thirdReadingS	voteFails	-	withdrawn
9.1	-	constructor	-	inPreparation
9.2	inPreparation	introduceInSenate	isCommonsBill=false	firstReadingS
9.3	firstReadingS	votePasses	-	secondReadingS
9.4	secondReadingS	votePasses	-	committeeConsiderationS
9.5	committeeConsiderationS	votePasses	-	thirdReadingS
9.6	thirdReadingS	votePasses / !getIsCommonsBill()	-	firstReading
10.1	-	constructor	-	inPreparation
10.2	inPreparation	introduceInHouse	isCommonsBill=true (implied)	firstReadingS
10.3	firstReading	votePasses	-	secondReading
10.4	secondReading	votePasses	-	committeeConsideration
10.5	committeeConsideration	votePasses	-	thirdReading
10.6	thirdReading	votePasses / getIsCommonsBill()	-	firstReadingS
10.7	firstReadingS	votePasses	-	secondReadingS
10.8	secondReadingS	votePasses	-	committeeConsiderationS
10.9	committeeConsiderationS	votePasses	-	thirdReadingS
10.10	thirdReadingS	votePasses / getIsCommonsBill()	-	awaitingRoyalAssent
10.11	awaitingRoyalAssent	royalAssent	-	actOfParliament
11.1	-	constructor	-	inPreparation
11.2	inPreparation	introduceInHouse	isCommonsBill=true (implied)	firstReading
11.3	firstReading	withdrawn	-	withdrawn

11.4	withdrawn	modify	-	inPreparation
12.1	-	constructor	-	inPreparation
12.2	inPreparation	introduceInHouse	isCommonsBill=true (implied)	firstReading
12.3	firstReading	voteFails	-	withdrawn
13.1	-	constructor	-	inPreparation
13.2	inPreparation	introduceInHouse	isCommonsBill=true (implied)	firstReading
13.3	firstReading	votePasses	-	secondReading
13.4	secondReading	withdrawn	-	withdrawn
14.1	-	constructor	-	inPreparation
14.2	inPreparation	introduceInHouse	isCommonsBill=true (implied)	firstReading
14.3	firstReading	votePasses	-	secondReading
14.4	secondReading	voteFails	-	withdrawn
15.1	-	constructor	-	inPreparation
15.2	inPreparation	introduceInHouse	isCommonsBill=true (implied)	firstReading
15.3	firstReading	votePasses	-	secondReading
15.4	secondReading	votePasses	-	committeeConsideration
15.5	committeeConsideration	withdrawn	-	withdrawn
16.1	-	constructor	-	inPreparation
16.2	inPreparation	introduceInHouse	isCommonsBill=true (implied)	firstReading
16.3	firstReading	votePasses	-	secondReading
16.4	secondReading	votePasses	-	committeeConsideration
16.5	committeeConsideration	voteFails	-	withdrawn
17.1	-	constructor	-	inPreparation
17.2	inPreparation	introduceInHouse	isCommonsBill=true (implied)	firstReading
17.3	firstReading	votePasses	-	secondReading
17.4	secondReading	votePasses	-	committeeConsideration
17.5	committeeConsideration	votePasses	-	thirdReading

17.6	thirdReadingS	withdrawn	-	withdrawn
18.1	-	constructor	-	inPreparation
18.2	inPreparation	introduceInHouse	isCommonsBill=true (implied)	firstReading
18.3	firstReading	votePasses	-	secondReading
18.4	secondReading	votePasses	-	committeeConsideration
18.5	committeeConsideration	votePasses	-	thirdReading
18.6	thirdReading	voteFails	-	withdrawn
19.1	-	constructor	-	inPreparation
19.2	inPreparation	introduceInHouse	isCommonsBill=true (implied)	firstReading
19.3	firstReading	votePasses	-	secondReading
19.4	secondReading	votePasses	-	committeeConsideration
19.5	committeeConsideration	votePasses	-	thirdReading
19.6	thirdReading	votePasses / getIsCommonsBill()	-	firstReadingS
20.1	-	constructor	-	inPreparation
20.2	inPreparation	introduceInSenate	isCommonsBill=false	firstReadingS
20.3	firstReadingS	votePasses	-	secondReadingS
20.4	secondReadingS	votePasses	-	committeeConsideration
20.5	committeeConsideration	votePasses	-	thirdReadingS
20.6	thirdReadingS	votePasses / !getIsCommonsBill()	-	firstReading
20.7	firstReading	votePasses	-	secondReading
20.8	secondReading	votePasses	-	committeeConsideration
20.9	committeeConsideration	votePasses	-	thirdReading
20.10	thirdReading	votePasses / !getIsCommonsBill()	-	awaitingRoyalAssent
20.11	awaitingRoyalAssent	royalAssent	-	actOfParliament