Pset 2

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(c) Collaborators:

(d) I have followed the academic integrity and collaboration policy

(e) Hours:

1 Stable Matching

1.1 Hard example for stable matching

Stage #	Men's Proposals	Women Rejections & String

1	**A**: 1
	 B: 2
	 C: 3
	 D: 1
		1:
		    String: D
		    Rejected List: A
		 2:
		    String: B
		    Rejected List:
		 3:
		    String: C
		    Rejected List:
		 4:
		    String:
		    Rejected List:

2	**A**: 2
	 B: 2
	 C: 3
	 D: 1
		1:
		    String: D
		    Rejected List: A
		 2:
		    String: A
		    Rejected List: B
		 3:
		    String: C
		    Rejected List:
		 4:
		    String:
		    Rejected List:

3	**A**: 2
	 B: 3
	 C: 3
	 D: 1
		1:
		    String: D
		    Rejected List: A
		 2:
		    String: A
		    Rejected List: B
		 3:
		    String: B
		    Rejected List: C
		 4:
		    String:
		    Rejected List:

4	**A**: 2
	B: 3
	C: 1
	D: 1
		1:
		    String: C
		    Rejected List: A, D
		2:
		    String: A
		    Rejected List: B
		3:
		    String: B
		    Rejected List: C
		4:
		    String:
		    Rejected List:

5	**A**: 2
	B: 3
	C: 1
	D: 2
		1:
		    String: C
		    Rejected List: A, D
		2:
		    String: D
		    Rejected List: B, A
		3:
		    String: B
		    Rejected List: C
		4:
		    String:
		    Rejected List:

6	**A**: 3
	B: 3
	C: 1
	D: 2
		1:
		    String: C
		    Rejected List: A, D
		2:
		    String: D
		    Rejected List: B, A
		3:
		    String: A
		    Rejected List: C, B
		4:
		    String:
		    Rejected List:

7	**A**: 3 **B**: 1 **C**: 1 **D**: 2	**1**: **String**: B **Rejected List**: A, D, C **2**: **String**: D **Rejected List**: B, A **3**: **String**: A **Rejected List**: C, B **4**: **String**: **Rejected List**:
8	**A**: 3 **B**: 1 **C**: 2 **D**: 2	**1**: **String**: B **Rejected List**: A, D, C **2**: **String**: C **Rejected List**: B, A, D **3**: **String**: A **Rejected List**: C, B **4**: **String**: **Rejected List**:
9	**A**: 3 **B**: 1 **C**: 2 **D**: 3	**1**: **String**: B **Rejected List**: A, D, C **2**: **String**: C **Rejected List**: B, A, D **3**: **String**: D **Rejected List**: C, B, A **4**: **String**: **Rejected List**:

| 10 | **A**: 4
B: 1
C: 2
D: 3 | **1**:
    String: B
    Rejected List: A, D, C
2:
    String: C
    Rejected List: B, A, D
3:
    String: D
    Rejected List: C, B, A
4:
    String: A
    Rejected List: |

1.2 A tight bound on the number of proposals