**Player 1**

These are your preference profiles for the *laptop domain*. Your values are different from **Player 2** and **Player 3** and you should keep them concealed, as in a negotiation setting every participant has the only information of her own preference values.

You will perform two negotiation sessions with the other two players following the **SAOP protocol** (review the notes in Lab3 for details about the protocol). Use the top preference profile for the first negotiation and the bottom one for the second. The negotiations will have a time limit of **5 rounds**. And remember, if you don’t reach an agreement after the deadline your final utility is zero! (since there is no reservation value)

Before the negotiations, think together:

* **What is the size of the bid space?**
* **How much of the bid space can be explored in 5 rounds?**

After negotiating, calculate the outcome utilities for each agent and think for each negotiation:

* **Who was the winner at each negotiation?**
* **Was the final outcome pareto efficient?**
* **What is the Nash product of the agreement? (As the product of the three players’ utilities)**
* **Is it the Nash bargaining solution?**

**Preference profile of scenario 1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Issue** | **Weight** | **Values: Evaluation** | | |
| Brand | 0.1 | **Dell:** 0 | **Apple:** 1 | **HP:** 0 |
| Hard Disk | 0.8 | **256 GB:** 1 | **512 GB:** 0.2 | **1 TB:** 0.3 |
| Monitor | 0.1 | **13’’:** 0.1 | **15’’:** 0.2 | **17’’:** 1 |

**Preference profile of scenario 2**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Issue** | **Weight** | **Values: Evaluation** | | |
| Brand | 0.4 | **Dell:** 1 | **Apple:** 0.4 | **HP:** 0.7 |
| Hard Disk | 0.3 | **256 GB:** 0.8 | **512 GB:** 1 | **1 TB:** 0.2 |
| Monitor | 0.3 | **13’’:** 1 | **15’’:** 0.5 | **17’’:** 0.3 |

**Player 2**

These are your preference profiles for the *laptop domain*. Your values are different from **Player 1** and **Player 3** and you should keep them concealed, as in a negotiation setting every participant has the only information of her own preference values.

You will perform two negotiation sessions with the other two players following the **SAOP protocol** (review the notes in Lab3 for details about the protocol). Use the top preference profile for the first negotiation and the bottom one for the second. The negotiations will have a time limit of **5 rounds**. And remember, if you don’t reach an agreement after the deadline your final utility is zero! (since there is no reservation value)

Before the negotiations, think together:

* **What is the size of the bid space?**
* **How much of the bid space can be explored in 5 rounds?**

After negotiating, calculate the outcome utilities for each agent and think for each negotiation:

* **Who was the winner at each negotiation?**
* **Was the final outcome pareto efficient?**
* **What is the Nash product of the agreement? (As the product of the three players’ utilities)**
* **Is it the Nash bargaining solution?**

**Preference profile of scenario 1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Issue** | **Weight** | **Values: Evaluation** | | |
| Brand | 0.7 | **Dell:** 1 | **Apple:** 0.2 | **HP:** 0.3 |
| Hard Disk | 0.2 | **256 GB:** 0.3 | **512 GB:** 1 | **1 TB:** 0.1 |
| Monitor | 0.1 | **13’’:** 0.1 | **15’’:** 1 | **17’’:** 0.3 |

**Preference profile of scenario 2**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Issue** | **Weight** | **Values: Evaluation** | | |
| Brand | 0.35 | **Dell:** 0.8 | **Apple:** 1 | **HP:** 0.5 |
| Hard Disk | 0.35 | **256 GB:** 1 | **512 GB:** 0.3 | **1 TB:** 0.8 |
| Monitor | 0.3 | **13’’:** 0.7 | **15’’:** 0.5 | **17’’:** 1 |

**Player 3**

These are your preference profiles for the *laptop domain*. Your values are different from **Player 1** and **Player 2** and you should keep them concealed, as in a negotiation setting every participant has the only information of her own preference values.

You will perform two negotiation sessions with the other two players following the **SAOP protocol** (review the notes in Lab3 for details about the protocol). Use the top preference profile for the first negotiation and the bottom one for the second. The negotiations will have a time limit of **5 rounds**. And remember, if you don’t reach an agreement after the deadline your final utility is zero! (since there is no reservation value)

Before the negotiations, think together:

* **What is the size of the bid space?**
* **How much of the bid space can be explored in 5 rounds?**

After negotiating, calculate the outcome utilities for each agent and think for each negotiation:

* **Who was the winner at each negotiation?**
* **Was the final outcome pareto efficient?**
* **What is the Nash product of the agreement? (As the product of the three players’ utilities)**
* **Is it the Nash bargaining solution?**

**Preference profile of scenario 1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Issue** | **Weight** | **Values: Evaluation** | | |
| Brand | 0.2 | **Dell:** 0.4 | **Apple:** 0 | **HP:** 1 |
| Hard Disk | 0.1 | **256 GB:** 0.1 | **512 GB:** 0.2 | **1 TB:** 1 |
| Monitor | 0.7 | **13’’:** 1 | **15’’:** 0.5 | **17’’:** 0.6 |

**Preference profile of scenario 2**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Issue** | **Weight** | **Values: Evaluation** | | |
| Brand | 0.3 | **Dell:** 0.5 | **Apple:** 0.7 | **HP:** 1 |
| Hard Disk | 0.25 | **256 GB:** 0.2 | **512 GB:** 0.7 | **1 TB:** 1 |
| Monitor | 0.45 | **13’’:** 0.7 | **15’’:** 1 | **17’’:** 0.3 |