**Objective:**

I will design a calendar management system (CMS). The goal of this system is to maintain appointments. An appointment has attributes such as date, time, place, and appointment description. Maintain means to be able to view appointments, add new appointments, modify existing appointments, and delete existing appointments.

In particular, this is a collaborative CMS that enables
1) a secretary to schedule appointments on his or her boss’ calendar, and
2) multiple members of a workgroup to schedule meetings with each other without compromising privacy.

**User Roles**

Users and their needs should be understood in terms of their relationships with the system to be designed. The user roles can be represented by abstract collections of needs, interests, expectations, behaviors, and responsibilities characterizing the relationship between a class of users and a system.

The Candidate User Roles I defined for this system are:

1) **RegularSecretary (RS):** a secretary to schedule appointments on his or her boss’ calendar
2) **RegularGroupUser (RGU):** multiple members of a workgroup to schedule meetings with each other without compromising privacy. They are able to manage their own appointments and schedule meetings with other people.
3) **GeneralManager (GM):** a manager whose appointments are managed by the RegularSecretary and he himself only need to view the existing appointments.
4) **RegularUser (RU):** have standard calendar functions

**Focal Roles**

The focal roles here will be the first 2: RegularSecretary and RegularGroupUser

The reason I choose these 2 as focal roles are:
1) RegularSecretary is a specific user role to the application
2) RegularGroupUser is the most common user role to this collaborative CMS application.

These 2 roles will be prioritized in designing the software.
**User Role Maps**

There are only 4 user roles in my CMS. So the User Role Map is simple.

GeneralManager and RegularGroupUser specialize the RegularUser role. RegularSecratary specializes RegularGroupUser role.

The User role map looks like:

![User Role Map Diagram]

**Structured Role Models**

Please refer to the following 4 form S3A

**UserRole Model**
**Focal role**

- **RS**

**Identifier:** RS  
**Name:** RegularSecretary

**References:**

**Specializes:**

- RegularGroupUser

**Includes:**

- None

**Other related roles (precedes, suppliers, etc.)**

**Supplies to GeneralManager**

**General characteristics (narrative description)**

A secretary to schedule appointments on his or her boss' calendar

**Salient background (training, education, experience, background, sophistication, intelligence, etc.):**

Trained and experienced.

**Domain knowledge**

<table>
<thead>
<tr>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
</table>

**System knowledge**

<table>
<thead>
<tr>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
</table>

**Proficiency profile**

<table>
<thead>
<tr>
<th>% low/novice</th>
<th>% medium/intermediate</th>
<th>90% high/expert</th>
</tr>
</thead>
</table>

**Interaction Profile**

- Frequency: 
  - low: _
  - medium: _
  - high: x
  - predictable: _
  - variable: _
  - unpredictable: _
  - irregular: _
  - regular: x
  - discontinuous: _

- Intensity (rate): 
  - low: _
  - medium: _
  - high: x
  - concentrated (batched): _
  - distributed: _
  - continuous: _
  - discontinuous: _

- Total volume: 
  - low: _
  - medium: _
  - high: x
  - simple: _
  - moderate: _
  - complex: x
  - process-driven: x
  - user-driven: _

**Information Profile:**

- Dominant flow: _from user_  
  - to user: x
  - balanced: _

- Origin: _aural input_  
  - visual input: _
  - mental process: _
  - telephone: x
  - paper: _
  - other: _

- Available information volume: _low_  
  - medium: _
  - high: x
  - very high: _

- Data complexity (elements, groups, data types, sources etc.): 
  - low: _
  - medium: _
  - high: x
  - very high: _

**Supporting capabilities (special needed functions, features or facilities)**

**Usability Objective (rank or check):**

- x efficiency  
- accuracy: x
- reliability: _
- learnability: _
- rememberability: _
- user satisfaction: x
- clarity: _
- comprehensibility: x
- attractiveness: _
- other: _

**Other salient role features or characteristics:**
## User Role Model

**Focal role**: RegularGroupUser

### Identifier: RGU  
Name: RegularGroupUser

### References:

**Specializes:**  
RegularUser

**Includes:**  
None

**Other related roles (precedes, suppliers, etc.):**  
None

### General characteristics (narrative description)

Multiple members of a workgroup to schedule meetings with each other without compromising privacy.

### Salient background (training, education, experience, background, sophistication, intelligence, etc.):

Varied.

<table>
<thead>
<tr>
<th>Domain knowledge</th>
<th>System knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Low</em> <em>Medium</em> <em>High</em></td>
<td><em>Low</em> <em>Medium</em> <em>High</em></td>
</tr>
</tbody>
</table>

### Proficiency profile

<table>
<thead>
<tr>
<th><em>% low/novice</em></th>
<th><em>% medium/intermediate</em></th>
<th>80% high/expert</th>
</tr>
</thead>
</table>

### Interaction Profile

| Frequency: _low_ _medium_ _high_ _predictable_ _variable_ _unpredictable_ _irregular_ _regular_ |
|----------------|------------------------|
| Intensity (rate): _low_ _medium_ _high_ _concentrated(batched)_ _distributed_ _continuous_ _discontinuous_ |
| Total volume: _low_ _medium_ _high_ _simple_ _moderate_ _complex_ _process-driven_ _user-driven_ |

### Information Profile:

| dominant flow: _from user_ _to user_ _balanced_ |
|----------------|----------------|
| Origin: _aural input_ _visual input_ _mental process_ _telephone_ _paper_ _other:_ |
| Available information volume: _low_ _medium_ _high_ _very high_ |
| Data complexity (elements, groups, data types, sources etc.): _low_ _medium_ _high_ _very high_ |

### Supporting capabilities (special needed functions, features or facilities)

### Usability Objective (rank or check):

| _X_ efficiency_ _X_ accuracy_ _X_ reliability_ _X_ learnability_ _rememberability_ _user satisfaction_ _X_ clarity_ |
|----------------|----------------|
| _X_ comprehensibility_ _X_ attractiveness_ _other:_ |
## Other salient role features or characteristics:

### User Role Model

**Focal role**

| Identifier: GM | Name: GeneralManager |

**References:**

**Specializes:**

RegularUser

**Includes:**

None

**Other related roles (precedes, suppliers, etc.):**

RegularSecretary supplies the information

### General characteristics (narrative description)

A manager whose appointments are made by the RegularSecretary and he himself only need to view and modify the existing appointments.

### Salient background (training, education, experience, background, sophistication, intelligence, etc.):

A little knowledge of the system.

### Domain knowledge

<table>
<thead>
<tr>
<th>X Low</th>
<th>Medium</th>
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</tr>
</thead>
</table>

### System knowledge

<table>
<thead>
<tr>
<th>X Low</th>
<th>Medium</th>
<th>High</th>
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</table>

### Proficiency profile

80% low/novice _% medium/intermediate _ % high/expert

### Interaction Profile

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<tr>
<th>Frequency:</th>
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</thead>
<tbody>
<tr>
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<td>_medium</td>
<td>_high</td>
</tr>
<tr>
<td>x low</td>
<td>_medium</td>
<td>_high</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Intensity (rate):</th>
<th>_x low</th>
<th>_medium</th>
<th>_high</th>
<th>_concentrated</th>
<th>_distributed</th>
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<th>_medium</th>
<th>_high</th>
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### Information Profile:

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<tr>
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<tbody>
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<td>_mental process</td>
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<th>_medium</th>
<th>_high</th>
<th>_very high</th>
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<table>
<thead>
<tr>
<th>Data complexity (elements, groups, data types, sources etc.):</th>
<th>_x low</th>
<th>_medium</th>
<th>_high</th>
<th>_very high</th>
</tr>
</thead>
</table>

### Supporting capabilities (special needed functions, features or facilities)

The system should provide a list of all the appointments for GeneralManager to view
### Usability Objective (rank or check):

- Efficiency
- Accuracy
- Reliability
- Learnability
- Rememberability
- User satisfaction
- Clarity
- Comprehensibility
- Attractiveness
- Other:

### Other salient role features or characteristics:

#### User Role Model

**Focus role**

<table>
<thead>
<tr>
<th>Identifier: GIU</th>
<th>Name: RegularUser</th>
</tr>
</thead>
</table>

**References:**

- **Specializes:**
  - None

- **Includes:**
  - None

- **Other related roles (precedes, suppliers, etc.)**
  - None

**General characteristics (narrative description):**

- **Standard calendar functions**

- **Salient background (training, education, experience, background, sophistication, intelligence, etc.):**

  - Varied

**Domain knowledge**

<table>
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**Interaction Profile**

- **Frequency:**
  - Low
  - Medium
  - High

- **Intensity (rate):**
  - Variable
  - Unpredictable
  - Irregular
  - Regular
  - Continuous
  - Discontinuous

- **Total volume:**
  - Low
  - Medium
  - High

**Information Profile:**

- **Dominant flow:**
  - From user
  - To user
  - Balanced

- **Origin:**
  - Aural input
  - Visual input
  - Mental process
  - Telephone
  - Paper
  - Other:

- **Available information volume:**
  - Low
  - Medium
  - High
  - Very high

- **Data complexity (elements, groups, data types, sources etc.):**
  - Low
  - Medium
  - High
  - Very high
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<tr>
<td>_efficiency    _accuracy    _reliability    x learnability    _rememberability    _user satisfaction    x clarity</td>
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<tr>
<td>_comprehensibility    _attractiveness    _other:</td>
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