

COMP704 Research and Development Project



3D acupuncture healthcare data management and treatment system

Sprint Planning

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Sprint: Sprint 9 - Development 3



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DOCUMENT VERSION CONTROL

1. DOCUMENT INFORMATION

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Completion)

Version 1.0

Authors Nhan Nguyen Cao

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2. DOCUMENT SIGN-OFF

| ID | Member | Role | Signature | Timestamp |
|----------|-------------------|--------------------|-----------|---------------------|
| 21142355 | Tan Le Tran Ba | Project Manager | Car | 4 Feb 2023 21:30 |

3. DOCUMENT VERSIONS

| Version | | Timestamp | Description | Responsible members |
|---------|---|---------------------|-----------------------------|-------------------------------|
| 1.0 | 0 | 4 Feb 2023 15:50 | Initial plan for the Sprint | Nhan Nguyen Cao (21142377) |

I. SPRINT OBJECTIVE

- Collect user feedback from the target users (medical university students) and supervisor about the First version of Interactive prototype.
- Label acupuncture points of final batch of 3 main meridians (TE Triple Energizer, GB – Gallbladder, Liv – Liver) and 2 extraordinary meridians (Du and Ren) to the 3-D model.
- Design and implement feature test cases for Interactive Prototype V1.
- Research on advanced mouse effects (hovering and clicking) and camera effects (focusing on items) in Three.js library.
- Handle the API endpoints for storing, retrieving, updating information about the meridians and acupuncture points.
- Complete the model in ready-for-production status, by optimizing the interactions and reduce lags.

II. SPRINT DETAILS

1. SPRINT TIMELINE

Timeline: 6 Feb 2023 - 19 Feb 2023

Duration: 2 weeks

Table 1 - Sprint timeline

| Week | Timeline | Detail | | |
|------|---------------------------|--|--|--|
| | | Collect user feedback from the target users (medical university students) and supervisor about the First version of Interactive prototype. | | |
| | | Handle the API endpoints for storing, retrieving, updating information about the meridians. | | |
| 1 | 6 Feb 2023 – 12 Feb 2023 | Label acupuncture points of second batch of 3 main meridians (TE, GB, Liv) to the 3-D model. | | |
| | | Research and conduct technical experiments on advanced mouse effects (hovering and clicking) and camera effects (focusing on items) in Three.js library. | | |
| | | Design feature test cases for Interactive Prototype – V1. | | |
| | 13 Feb 2023 – 19 Feb 2023 | Summary user feedback from target users and supervisor about the First version of Interactive prototype. | | |
| | | Discuss for the changes based on the summarized feedback on the Interactive prototype – V1 for V2. | | |
| 2 | | Handle the API endpoints for storing, retrieving, updating information about the acupuncture points. | | |
| | | Label acupuncture points of second batch of 2 extraordinary meridians (Du, Ren) to the 3-D model. | | |
| | | Optimize the interactions on the 3-D model and reduce lag. | | |
| | | Implement feature test cases for Interactive Prototype – V1 | | |

2. TEAM VELOCITY

Table 2 - Team Velocity for the Sprint (unit: hours)

| Day of week | Nhan Nguyen Cao | Tan Le Tran Ba | Trang Ho Ngoc Thao | Chuong Pham Dinh | Total |
|-------------|--------------------|-------------------|-----------------------|---------------------|-------|
| WEEK | (21142377) | (21142355) | (21142358) | (21142643) | |
| Mon | 2 | 0 | 1 | 1.5 | 4.5 |
| Tue | 2 | 1.5 | 0 | 2 | 5.5 |
| Wed | 2 | 2 | 1 | 1.5 | 6.5 |
| Thu | 2 | 3 | 1 | 1.5 | 7.5 |
| Fri | 2 | 1 | 1 | 1.5 | 5.5 |
| Sat | 0 | 3 | 4 | 2 | 9 |
| Sun | 2 | 1.5 | 4 | 2 | 9.5 |
| Total | 12 | 12 | 12 | 12 | 48 |

3. BACKLOG ITEMS

Table 3 - Backlog items

| Item ID | Item description | Story points | Estimated effort (h) | Notes |
|------------|---|-----------------|----------------------|-------|
| 1 | Send interactive UI V1 to the students to get feedback about the prototype | 2 | 4 | |
| 2 | Set up API endpoint for getting meridian information | 1 | 3 | |
| 3 | Set up API endpoint for updating meridian information | 2 | 4 | |
| 4 | Draw to layout: TE meridian | 2 | 4 | |
| 5 | Draw to layout: GB meridian | 3 | 6 | |
| 6 | Draw to layout: Liv meridian | 2 | 4 | |
| 7 | Research hovering and clicking the acupuncture points and meridians | 2 | 4 | |
| 8 | Research changing camera focus to the selected meridian or acupuncture points | 2 | 4 | |
| 9 | Technical experiments of mouse and camera effects on the 3-D model | 3 | 6 | |
| 10 | Design feature test cases for Interactive Prototype – V1 | 3 | 8 | |

| 11 | Summary the feedback about interactive UI V1 from the medical students and supervisor | 3 | 6 | |
|-------|---|----|----|--|
| 12 | Create the second version for prototype V2 based on the feedback received from V1 (Stage 1) | 2 | 6 | |
| 13 | Draw to layout: Du meridian | 2 | 4 | |
| 14 | Draw to layout: Ren meridian + extra points | 2 | 5 | |
| 15 | Set up API endpoint for getting acupuncture point information | 3 | 6 | |
| 16 | Set up API endpoint for updating acupucnture point information | 3 | 6 | |
| 17 | Implement feature test cases for Interactive Prototype – V1 | 3 | 6 | |
| 18 | Optimize interactions for the model in Three.js | 3 | 6 | |
| 19 | Reduce lag for the model integrated to the site using Three.js | 2 | 4 | |
| Total | 19 tasks | 45 | 96 | |

4. SPRINT INPUTS

- 3-D model integrated successfully with 9 meridians have acupuncture points labeled successfully (LU, LI, ST, SP, HT, SI, BL, KI, PC).
- Data about 14 meridians and 361 acupuncture points (in MongoDB database) stored and validated.
- Interactive UI Version 1, based on Prototype V1, done basically and can be accessible through staging server
- Back-end code repository (NestJS) set up with CI/CD pipeline integrated successfully.
- Sources to referencing the locations of 14 meridians and 361 acupuncture points.

5. SPRINT OUTPUTS

- Acupuncture points of last batch of 3 main meridians and 2 extraordinary meridians (TE, GB, Liv, Du, Ren) labeled successfully at correct locations on the 3-D model.
- Feedback from Medical university students and Supervisor collected and summarized.
- API endpoints available for storing, retrieving, updating information about the meridians and acupuncture points.

- Technical experiments of adding hovering, clicking effects and camera focus-onitem effects on the 3-D model.
- 3-D model in ready-for-production status, reduced lags and optimized the available interactions for users.
- Feature test cases designed and documented on Interactive Prototype V1

III. SPRINT DETAILS

Table 4 - Sprint details

| Task ID | Task name | Story points | Estimated effort (h) | Assignee | |
|------------|---|--------------|----------------------|-----------------------|--|
| 1 | Send interactive UI V1 to the students to get feedback about the prototype | 2 | 4 | Tan Le Tran Ba | |
| 2 | Set up API endpoint for getting meridian information | 1 | 3 | Trang Ho Ngoc Thao | |
| 3 | Set up API endpoint for updating meridian information | 2 | 4 | | |
| 4 | Draw to layout: TE meridian | 2 | 4 | Tan Le Tran Ba | |
| 5 | Draw to layout: GB meridian | 3 | 6 | Trang Ho Ngoc Thao | |
| 6 | Draw to layout: Liv meridian | 2 | 4 | Chuong Pham Dinh | |
| 7 | Research hovering and clicking the acupuncture points and meridians | 2 | 4 | | |
| 8 | Research changing camera focus to the selected meridian or acupuncture points | 2 | 4 | Nhan Nguyen Cao | |
| 9 | Technical experiments of mouse and camera effects on the 3-D model | 3 | 6 | | |
| 10 | Design feature test cases for Interactive Prototype – V1 | 3 | 8 | Chuong Pham Dinh | |
| 11 | Summary the feedback about interactive UI V1 from the medical students and supervisor | 3 | 6 | Tan Le Tran Ba | |
| 12 | Create the second version for prototype V2 based on the feedback received from V1 (Stage 1) | 2 | 6 | Tail Le Hail Da | |
| 13 | Draw to layout: Du meridian | 2 | 4 | Nhan Nguyen Cao | |
| 14 | Draw to layout: Ren meridian + extra points | 2 | 5 | Chuong Pham Dinh | |
| 15 | Set up API endpoint for getting acupuncture point information | 3 | 6 | Trang Ho Ngoc | |
| 16 | Set up API endpoint for updating acupucnture point information | 3 | 6 | Thao | |

| 17 | Implement feature test cases for Interactive Prototype – V1 | 3 | 6 | Chuong Pham Dinh |
|-------|--|----|----|---------------------|
| 18 | Optimize interactions for the model in Three.js | 3 | 6 | Nhan Nguyen |
| 19 | Reduce lag for the model integrated to the site using Three.js | 2 | 4 | Cao |
| Total | 19 tasks | 45 | 96 | |