**北京邮电大学 本科毕业设计（论文）任务书**

**Project Specification Form**

**Part 2 - Student**

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| --- | --- | --- | --- | --- | --- |
| **学院**  **School** | International School | **专业**  **Programme** | Choose an item. | | |
| **姓**  **Family name** |  | **名**  **First Name** |  | | |
| **BUPT学号**  **BUPT number** |  | **QM学号**  **QM number** |  | **班级**  **Class** |  |
| **论文题目**  **Project Title** | Design and Implementation of Collaborative -Learning Web Platform | | | | |
| **论文概述**  **Project outline**  **Write about 500-800 words**  **Please refer to Project Student Handbook section 3.2** | **Project Aim**:  The main goal of this project is to design and build an online learning platform.  The main users of the platform are：  students who want to review the content of the classroom,  students who want to learn the extended content,  and even individuals who do not have the opportunity to go to high school or college.  The main purpose of the platform is to make learning an autonomous process,：Students or their classmates can upload course or topic-related materials, test papers, and answers to the test papers, ask questions and comments on the relevant study materials, and then give peer review of the answers to the questions. Students will not be interrupted by the relentless class time when they are studying problems at classroom. And the goal of this system is to help students deepen their understanding by accessing learning content and lectures anytime them want. This system allows students to study no longer just for exams, but through the connection and recommendation of knowledge, there can be more organic connection between the content for students. With the assistance of our system, students have the freedom of time from classroom, and they are guided by their own curiosity and follow the path of interest, because the recommendation part of the system and the knowledge map can better connect the learning content.  **Project Objectives**:  The E-Learning system functions currently consist of the following:  1. User registration/login/  Users can register according to email/phone/username, etc., can have nickname, password  2. Personal homepage  Users can have their own personal profile, and the profile can modify the information of various first steps  3. Permission division (administrator/common user)  Administrators can see the upload material detail list, add, delete, modify and check courses  4. The introduction page of the material (title, content)  5. exam paper and questions related material upload function, material download function  6. give comments and add questions on the material page and related area.  7. The home page of the website displays the learning material, go to registration, login, personal homepage, various places  8. Some advanced functions, such as the information of the E-learning whole station course, do the knowledge graph function (analysis, knowledge graph association and visualization, **Optional**, advanced features to implement if we have time)  9. Recommendation system (using collaborative filtering recommendation algorithm based on offline data of other users, recommending courses that users may be interested in/should learn **Optional**, advanced features to implement if we have time) | | | | |
| **道德规范**  **Ethics**  **Please discuss ethical issues with your supervisor using the ethics checklist in Project Handbook Appendix 1.** | Please confirm by checking the box:  I confirm that I have discussed ethical issues with my supervisor. | | | | |
| Summary of ethical issues:  (write “None” if no ethical issues) | | | | |
| **中期目标**  **Mid-term target.**  **It must be tangible outcomes,**  **E.g. software, hardware or simulation.**  **It will be assessed at the mid-term oral.** |  | | | | |

**Work Plan (Gantt Chart)**

Fill in the sub-tasks and insert a letter X in the cells to show the extent of each task

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|  | **Nov**  **1-15** | **Nov**  **16-30** | **Dec**  **1-15** | **Dec**  **16-31** | **Jan**  **1-15** | **Jan**  **16-31** | **Feb**  **1-15** | **Feb**  **16-28** | **Mar**  **1-15** | **Mar**  **16-31** | **Apr**  **1-15** | **Apr**  **16-30** |
| **Task 1 [Replace this line with the task 1 from the Spec part 1]** | | | | | | | | | | | | |
| This is an example sub-task (please delete it). Please enter your sub-task here. | X | X | X |  |  |  |  |  |  |  |  |  |
| By investigating existing shared online platforms (such as notion/slack), we discovered the thinking behind them and their strengths and weaknesses |  |  |  |  |  |  |  |  |  |  |  |  |
| Investigating notions is more based on notes, and other knowledge sharing is all based on notes. The disadvantage is that the interaction is relatively weak. I will use notions as a learning reference for note-based knowledge collaboration.  And also slack, more about chat to learn. |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Task 2 [Replace this line with the task 2 from the Spec part 1]** | | | | | | | | | | | | |
| Users (students and on-the-job workers who want to learn vocational skills) may value knowledge and the experience and feedback of previous learners in the field, so we want to allow users to upload/download materials related to the learning content, supplement, comment and annotate |  |  |  |  |  |  |  |  |  |  |  |  |
| Our platform should be based on learning materials, and then an online platform based on remarks/related content uploads/related feedback, as well as an inspection of knowledge mastery |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Task 3 [Replace this line with the task 3 from the Spec part 1]** | | | | | | | | | | | | |
| Main stack of the online Elearning platform: flask+sqlchemy+flask cros + numpy+ html5+vue+jquery , at present this is the way we to implement it. |  |  |  |  |  |  |  |  |  |  |  |  |
| On the whole, the event is mainly triggered from the template + bootstrap + css3 page of the front-end Jinja, and then passed to the Flask API through Flask CROS |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Task 4 [Replace this line with the task 4 from the Spec part 1]** | | | | | | | | | | | | |
| We would commit some unit test/ Regression Test to make sure the system is what we want. |  |  |  |  |  |  |  |  |  |  |  |  |
| We will try it out ourselves, interact with classmates according to some areas we are learning (such as computer network knowledge), and see if the interaction and functions need to be adjusted. |  |  |  |  |  |  |  |  |  |  |  |  |
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