

Teamwork Project Plan

Team Members:

Name James Gormley
Kritika Nautiyal
James Wilson

| Student Number | Primary Role | Secondary Role |
|----------------|--------------|----------------|
| C12527253 | Coder | Tester |
| C10720209 | Designer | Coder |
| C11398586 | Team Leader | Documenter |

Roles:

- Team leader - Maintains this document allocate tasks.
- Developer - Coding & developing the system, also leader of coding team allocates small efficient development phases to the team.
- Tester - We are all a part of the test driven environment. James Wilson and James Gormley are both the white box testers, and Kritika is our black box tester
- Documentation - documentation handled and organised by the documenter.

Project Title

UberVideo DVD Rental System

Version Number: 1**Change History:**

| Date | Author | Comments |
|----------|------------------|---|
| 13/03/15 | James Wilson | Updated roles accordingly, also updated weekly plan |
| 13/03/15 | James Gormley | Defined some of the approaches proposed/taken. |
| 11/03/15 | James Wilson | Updated Summary of the project |
| 13/03/15 | James Wilson | Updated Deliverables |
| 13/03/15 | Kritika Nautiyal | Allocated tasks, Maintain documents |
| 16/03/15 | James Gormley | Updated approaches taken |
| 18/03/15 | James Gormley | Further updates to approaches taken and week 8 edited |
| 19/03/15 | James Gormley | Edited wording of numerous sections of the document. |
| 19/03/15 | Kritika Nautiyal | Checked all the updates |
| 20/03/15 | James Wilson | Further edited the design approach. |
| 21/03/15 | James Wilson | Updated Deliverables. |
| 17/04/15 | James G | Updated weekly project plan for final weeks and also related documents section. |
| 21/04/15 | James G | Amended plan with changes for final week |
| 21/04/15 | Kritika Nautiyal | Updated and finalised all the documents |

Teamwork Project Plan

Summary

This aim of the project is to develop a system for a DVD rental company called Uber-Video. Our team has been tasked with developing a system for this company which will allow users to view, reserve and rent DVD's. The goal is to allow access to the site by both staff members and public users/registered members. There are three proposed types of users in this system, the Admin, basic staff members and registered members. The general public will also be allowed to view the DVD library. The DVD library will be contained in a database, as will the users of the service and the rentals and reservations. This system will be implemented as a website to allow real-time access to the databases to users with the necessary privileges. The deadline for delivery of the system is concrete, this makes delivery of a functional system by said deadline a priority.

Proposed Approach

0. Overall approach

An agile approach has been adopted, primarily extreme programming (XP). It is our opinion that requirements could and will change during the process. For this reason the waterfall model has been avoided. Extreme programming also holds the whole team as a value, this will be important as communication is a priority. Pair programming, a core value of the extreme programming methodology, will also be utilised. This will be important as some members of the team are stronger coders than others. An on-site customer (our supervisor) is another core value of the XP model and will be utilised during this process. Risks with this method include the lack of a concrete plan, this allows us to move back and forth between phases but could potentially lead to problems. It is important that frequent functional software be produced, even if these are only small parts of the overall system.

1. Requirements Phase:

Requirements will be primarily ascertained from the description of the system given to us and through discussion with the customer. This began in week 2 upon being given the DVD system as a project and is on-going as requirements are not concrete. This is why an agile approach is needed. However, as long as there are changeable requirements, we run the risk over overreaching for functionality and this could lead to the project running over time with respect to the deadline. This is not an option as the project's due date is concrete, so running over could be disastrous.

2. Design Phase:

As stated the overall approach, XP is the primary design methodology chosen for this project. Risks include the lack of planning that goes hand in hand with this methodology, delivering functional aspects of the project as well as staying on top of the documentation will remain a priority throughout.

In larger projects, face to face communication between all the members of a team can be undeliverable, but with our small team of 3, this should not be a problem. Also an on-site customer could be undesirable in some projects, but as we only have access to the customer for 2 hours a week this again, should not be a problem.

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We have also chosen prototyping as a design methodology for this project. This design methodology is very useful espically because it is a website it gives us as developers a clear indication of what we have to develop in the website and how it would look when we are going to design the website. It also allows for the customer to see how the website will be implemented and how it would be changed as it gives the customer a clear graphical view.

3. Implementation Phase:

This system will primarily be built using technologies designed for building websites. These include but are not limited to html and php. Other technologies such as twitter bootstrap and css have been employed for the construction of this website. Xampp and apache will be used for the construction of the database and as a server to host the site. To avoid risks associated with version control, namely breaking the site and not being able to retrieve a working version, Github will be the primary system for version control in developing the system. The implementation phase of this project will run from the time we received the dvd system as a project until the project is due for submission.

4. Testing Phase:

White box testing will take place in sync with the implementation phase, as well as some black box testing. Test driven development will been utilised, in so far as small parts of the site will be developed to pass certain tests e.g. code a page which will allow DVD's to be added to the database. A member not involved in coding that part of the system will then be tasked with running black box tests to make sure the system functions as expected. Risks associated with testing include a risk that the developers of the system may not test as harshly as a third party. For this reason, where possible, team members not involved in coding will be tasked with testing.

Deliverables

| Code | Name | Priority | Description |
|------|----------------------------------|----------|---|
| 1 | Update, delete , insert DVD's | Base | This goal is set out so we can allow for the workers in Uber-Video to add update and delete DVD's from the system |
| 2 | Update, delete, insert customers | Base | Allow specified users to update, insert or delete customers from the customer table in the ubervideo database. |
| 3 | Insert, delete reservations | Base | Allow the customer to add a reservation and also clear a reservation from the table in the database |

Technical Requirements

The operating systems being utilised to implement this system are Windows 7 & 8, and Mac OS. The system is also being implemented in Ubuntu 12.04 by James Wilson (head developer) but less so. A windows 7 machine will be the predominant platform used to implement this system.

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Various programming languages are being used to develop this system. These include but may not be limited to, PHP, HTML5 , CSS, and Javascript. Software packages such as xampp and apache are to be used for constructing and hosting the database and the website. Twitter bootstrap shall be utilised as part of the CSS in the development of the website.

Thick and thin client platforms will be suitable for use with this system, this is the nature of a website and one of the largest factors influencing the teams choice of one.

Related Documents

| Document Title | Author(s) | Description |
|----------------------------|------------------|--|
| Test plan/results document | Team K | Record of tests and associated results. |
| Design document | Team K | Proposed design of the system in question. |
| User manual | James Wilson | Guide for the usage of the system in question. |
| Professional Issues Report | Kritika Nautiyal | Report documenting issues associated with codes of practice and conduct. |
| Requirements Document | James Gormley | Provisional requirements of the system |

Project Plan

Week 1:

This first week we will sit down and talk with the team about the project process as a whole and which role each of us would ideally choose. Also, choice of project will be a priority.

Discussions took place with respect to the project the group would pitch for. On Friday it was decided we would further examine the projects over the weekend and choose our individual top 3.

| Phase | Task | Priority | Name | Description |
|-------------------|-------------------|----------|--------|--|
| Preliminary phase | Decide on project | High | Team K | We wanted to get a good idea on what we wanted to develop. The team split up to choose a project we would be best suited from. |
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Week 2: On Monday we had a meeting to discuss what project we would go for based on the pros and cons of our selected choices, and decided on the DVD rental system would be favourable. Work then began on a presentation for Fridays meeting with our customer/supervisor. Paper prototypes for our proposed design were also began this week. Presentation took place on Friday

| Phase | Task | Priority | Name | Description |
|-------------|--------------|----------|--------|---|
| Preliminary | Presentation | High | Team K | Research and give presentation to pitch for DVD system. |

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| Design Phase | Paper Prototypes | Medium | Team K | Design paper prototype's the three selected projects |
|--|-----------------------|----------|------------------|--|
| Design Phase | Designed UML | medium | James Wilson | Designed first draft of UML diagrams using Star UML software. |
| <p>Week 3: Upon finding out that we successfully got our desired project, research began into the DVD Rental System and its implementation. We researched what language's would be used to design and build the project.</p> <p>Paper prototypes of our selected projects were designed to indicate possible designs for our selected project choices.</p> <p>Work also began on the Design Document for this project using google docs, including website prototypes, class and UML diagrams, ERD's etc.</p> | | | | |
| Phase | Task | Priority | Name | Description |
| Design Phase | GUI Prototype's | Medium | James Wilson | Designed the prototype's using HTML5 CSS and photo shop |
| Design Phase | UML & Class diagram | High | James Gormley | Designed updated the UML from the original first draft to reflect on new requirements and further functionality within the system. |
| Design Phase | Data base ERD diagram | High | Kritika Nautiyal | Designed the ERD database diagram. Which showed the basic requirements needed for the database. |
| <p>Week 4: Work began on a presentation to defend our proposed design. Research was also on-going into the various technologies we would use. The design document was built by the team and submitted alongside the presentation. On Friday the presentation was given. Continued on the design Document from last week, which was to be submitted on the Thursday at 6pm as well as the presentation.</p> | | | | |
| Phase | Task | Priority | Name | Description |
| Design Phase | Design Document | High | Team K | Construct a document to give a specification and overview of our proposed system |
| Preliminary | Presentation | High | Team K | Deliver coherent and concise presentation to the customer & accessor |
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Week 5: We discussed where to start with the website. We also wanted to organise the database using localhost (XAMPP on our local machines). We set up the tables (and their precise names) with reference to the Database design that was drawn up. Also tested database queries (not related to the project but for testing purposes).

| Phase | Task | Priority | Name | Description |
|-------------------|------------------------|----------|------------------------------|--|
| Development Stage | Develop Database | Medium | James Wilson | Created tables & Database within XAMPP. |
| Development Stage | Develop Database | High | James Gormley | Created the tables & Database within the local machine in XAMPP. |
| Design Phase | Update Database Design | High | James Wilson & James Gormley | Updated the Database design (included one to many). |
| Development Stage | Testing Database | Low | James Wilson | Tested some Database queries in PHP and HTML5 |
| Development stage | Develop Database | High | Kritika Nautiyal | Set the XAMPP on local machine and created tables and database. |
| Development Stage | Testing | Medium | Kritika Nautiyal | Made some sample sign up forms for the testing and some basic pages on HTML5 |

Week 6: Work was undertaken to develop working code to pass specific tests, for example, that title's could be added to the database.

| Phase | Task | Priority | Name | Description |
|----------------------|---|----------|--------------|---|
| Development Phase | Delegated Template | Medium | James Wilson | Delegated Database development (testing) to other team members so they could implement their development of their code. |
| Implementation Phase | Develop code to add entries to database | Medium | James Wilson | Write working code to add entries to the dvd table. This code will be used as a template to guide other team members in their coding. |

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| Development Phase | Templates | Medium | Kritika Nautiyal | As James made the sample templates, began working on the homepage |
|---|----------------------|----------|------------------------------|--|
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| Week 7: Continue work on the website. Work was also undertaken to catch up on the documentation of the project | | | | |
| Phase | Task | Priority | Name | Description |
| Implementation phase | Customer page | Medium | James Gormley | Develop code to add entries to the customer database, using James Wilsons DVD page as a guideline. |
| Implementation Phase | Website development | Medium | James Wilson | Work on cosmetic aspects of the website to improve the overall appearance. |
| Design Phase | Documentation | High | Team K | Work on the documentation of the project as a whole. |
| Implementation | Website Homepage | Medium | Kritika Nautiyal | Start coding on the login form using the template provided by James W. |
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| Week 8: Continue work on the various pages, both the cosmetic and the underlying functionality aspects. Work on Documentation. | | | | |
| Phase | Task | Priority | Name | Description |
| Implementation | Develop website | High | James Gormley & James Wilson | Continue work on various pages of the website |
| Testing phase | Run tests on website | Medium | James Gormley & James Wilson | Run tests to ensure the website adds entries to the database as expected. |
| Design Phase | Logo Design | Low | James Wilson & James Gormley | Use online tools to design a logo for the website. |
| Implementation | Documentation | Medium | Team K | Work on the various documents associated with the project. |
| Implementation | Documentation | Medium | Kritika Nautiyal | Continue work on documents and pages |
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| Week 9: Continue work on code and documentation. | | | | |
| Phase | Task | Priority | Name | Description |

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|----------------------|-----------------------|----------|---------------------------------|--|
| Implementation | Develop Site | High | James Wilson | Work on various pages, and implement functionality to link said pages together. |
| Testing phase | Tests | High | Team K | Test and observe entries to the various tables and their impact on dependant tables. |
| Implementation | Documentation | Medium | Team K | Work on the various documents associated with the project. |
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| Week 10: | | | | |
| Phase | Task | Priority | Name | Description |
| Implementation phase | Develop Website | Medium | Team K | Work on the in stock functionality of the website and login functionality. |
| Design phase | Testing Documentation | High | James Wilson | Work on the documentation to accompany tests ran to date |
| Testing phase | Tests | High | Team K | Test and observe entries to the various tables and their impact on dependant tables. |
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| Week 11: | | | | |
| Phase | Task | Priority | Name | Description |
| Testing phase | Tests | High | James Wilson | Test and observe results when logging in using various user credentials |
| Implementation | Develop website | High | James Wilson | Work on login functionality with respect to different user credentials. |
| Implementation | Documentation | Medium | James Gormley | Design final presentation. |
| Implementation | Documentation | High | Kritika Nautiyal | Bring together all the final documents. |
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| Week 12: | | | | |
| Phase | Task | Priority | Name | Description |
| Implementation | Documentation | High | James Gormley, Kritika Nautiyal | Work on various documents including the professional issues report and project data. |
| Implementation | Documentation | High | James Wilson | Complete user manual. |

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|------------------------|---------|------|--------|---|
| Testi ng phase | Tests | High | Team K | Complete tests, black and white box. Full run through of all functionality of the system. |
| Imple menta tion | Present | High | Team K | Prepare for and give final presentation |
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