

University Video Web Site Design and Development: Work Breakdown Structure Detailed Task Specifications

Planning

- 1 Planning is a work item that is comprised of work items Interviews and Analysis. Planning must be performed to develop a firm understanding of University Video's and its customer's wants and needs. An understanding of the competitive environment in which the store operates is also developed in the Planning phase.

The total estimated cost for planning is \$3,960, and will take an estimated 57 hours of work by *GD Interactive*.

- 1.1 Interviews is a work item containing the work packages Staff, Current Customer, and Potential Customer interviews. The necessity of these interviews is described below.

The total estimated cost for interviews is \$2,520, and will take an estimated 39 hours of work by *GD Interactive*.

- 1.1.1 Key staff members must be interviewed to develop a feel for the way the organization operates, and understand their wants and needs. *GD Interactive* will interview the storeowner, store manager, and several sales associates. This step is crucial in setting the direction and scope of the project, and will be conducted by project manager Glen Doss. Glen is an experienced project manager who has the ability to effectively determine project goals and requirements.

These interviews will take an estimated 9 hours to complete.

Cost: 9 hours x \$80/hour = \$720

- 1.1.2 Current customers must be interviewed to determine what they like or dislike about University Video, and how a new web site could benefit them as customers. Nick Myers, *GD Interactive*'s lead developer on the project, will interview these customers. Nick is experienced in assessing users needs and determining how they best translate into the online medium that the project is being developed for. He has the ability to understand how an idea can be incorporated and coded into a web site.

These interviews will take an estimated 15 hours to complete.

Cost: 15 hours x \$60/hour = \$900

- 1.1.3** Potential customers must be interviewed to determine why they are not University Video customers, and how could the new web site help to attract their business. Nick Myers, GD *Interactive*'s lead developer on the project, will interview these potential users.

These interviews will take an estimated 15 hours to complete.

Cost: 15 hours x \$60/hour = \$900

- 1.2** Analysis is a work item consisting of analyzing University Video and its competitors. It must be performed to understand the operating environment of University Video and its competitors.

The estimated total cost for analysis is \$1,440, and will take an estimated 18 hours of work by GD *Interactive*.

- 1.2.1** It is important to analyze University Video's current situation, and determine ways that a web site could improve it. The organizations strengths and weaknesses will be scrutinized. Project manager Glen Doss will analyze University Video. Glen has the ability to assess University Video's current situation and determine the scope and direction of the project.

This process is expected to take 12 hours.

Cost: 12 hours x \$80/hour = \$960

- 1.2.2** Competitors must be analyzed to determine the opportunities and threats that exist in Salisbury's video rental market. Project manager Glen Doss will conduct this competitor analysis.

This process is expected to take 6 hours.

Cost: 6 hours x \$80/hour = \$480

Site Design

- 2** Site Design is a work item that contains the work items Mock-Ups and Style Guide. The Site Design work will construct the creative visual presentation from which the site will be built around. It is here that the site takes on its style and personality.

The estimated total cost for site design is \$6,500, and will take an estimated 135 hours of work by GD *Interactive*.

- 2.1** Mock-Ups is a work item containing the work packages Graphical Treatment and Information Architecture. The Mock-Up process will consist of GD *Interactive*

designing and developing ideas and graphical representations of the site and presenting them to University Video. University Video will then make comments about their likes and dislikes concerning the mock-ups. *GD Interactive* will then take those comments and further refine the mock-ups. This cycle will continue until a mocked-up site design has been agreed upon by *GD Interactive* and University Video.

The estimated total cost for mock-ups is \$5,500, and will take an estimated 115 hours of work by *GD Interactive*.

- 2.1.1** The Graphical Treatment is focused on “making the site look pretty”. Graphical design techniques are used to create the style and feel for the site. Site colors and the use of images and photographs are investigated. The overall layout of the pages is determined. Various methods of graphical navigational systems are explored. *GD Interactive*’s experienced graphic artist Sandra Johnson will handle graphical treatment of the web site.

This step is expected to take 70 hours for her to complete.

Cost: 70 hours x \$40/hour = \$2,800

- 2.1.2** The Information Architecture of a site must be coordinated with the graphical treatment and design of the site. Information Architecture is the process of logically designing the site hierarchy, site structure, major content sections, and navigational systems in order to maximize usability. Issues such as site depth (the amount of content layers) and primary/secondary navigational systems must be closely scrutinized. It is the Information Architecture process that eventually spawns the completed site map. Nick Myers, *GD Interactive*’ lead developer on the project will handle the site’s information architecture, an area in which he has much experience.

This work package will take an estimated 45 hours.

Cost: 45ours x \$60/hour = \$2,700

- 2.2** Style Guide is a work item made up of the work packages Design Aspects and Technical Aspects. The style guide sets design specifications that must be used across the site and strictly followed by all designers and developers working on the site. The style guide also forms the basis for the CSS – Cascading Style Sheets to be used throughout the site.

The estimated total cost for this work item is \$1,000, and will take an estimated 20 hours of work by *GD Interactive*.

- 2.2.1** The Design Aspects of the style guide include, but are not limited to;

- The fonts to be used as body text, page titles, subtitles, etc.
- The way a font color contrasts with a certain table cell background color

- The font states for links: How should a link appear? How should it appear when the user places their mouse over the link? How should it appear after it has been visited?
- The colors to be used for graphical elements
- The format in which buttons will appear (size, color)
- What navigational elements will be graphics, and which ones will be text.

GD *Interactive's* experienced graphic artist Sandra Johnson will handle the design aspects of the style guide.

Sandra will spend an estimated 10 hours on this task.

Cost: 10 hours x \$40/hour = \$400

2.2.2 The technical aspects of the style guide involve issues such as, but not limited to;

- The font types that will display the best on the platforms (browser, browser version, resolution, PC vs. MAC, etc.) being targeted.
- The resolution colors that the site is being designed for (256 web safe colors vs. true color).
- The download speed of the proposed graphical elements on the connection speed being targeted.

GD *Interactive's* developer Nick Myers will handle the technical aspects of the style guide. He understands the intricacies involved with web site performance and feasibility.

This task will take an estimated 10 hours.

Cost: 10 hours x \$60 hour = \$600

Flyer Design and Creation

- 3** The design and creation of an advertising flyer will help to promote University Video's new web site and services. This flyer/advertisement will be posted around Eastern University's campus, displayed in local newspapers, and sent to potential customers in the mail. Parents of university students will receive the flyer in the mail, which advertises University Video's gift certificate service. Parents will be able to log on to the site and purchase prepaid accounts for their children. These accounts can be used as collateral online or when visiting the store. The home addresses of Eastern University students can be obtained free of charge from the University Record, a student phone and address directory. Graphic artist Sandra Johnson will design and construct the flyer.

The estimated total cost for this work item is \$80, and will take an estimated 2 hours of work by GD *Interactive*.

Site Map Creation

- 4 The creation of a site map will display in a hierarchical diagram the overall structure of the web site. It defines the major sections of a website, their landing pages, and sub sections. The site map displays where each page will be located in relation to the entire structure of the site. Much thought and process is necessary to determine where certain pages should be positioned and what the overall hierarchy of the site will be. Nick Myers the lead developer has the best understanding of how the site is structured, and will therefore create the site map.

This step will take an estimated 25 hours of work by *GD Interactive*.
Cost: 25 hours x \$60/hour = \$1,500

Template and Page Creation

- 5 Template and page creation is a work item comprised of work items Cutting Up Design, Creating Templates, Creating Pages, and work package Page Testing. This is where the web site is transformed from a graphical representation to a fully functional site. This involves converting the site to HTML and PHP, creating templates, applying those templates to pages, and testing those pages.

The estimated total cost for this work item is \$10,790, and will take an estimated 203 hours of work by *GD Interactive*.

- 5.1 Cutting up the design involves taking a graphical representation of the site, usually in the form of a Photoshop .psd file and cutting it up into a series of images that can be placed into HTML. Cutting up the site is based on how the site design will fit into table structures (the basis of web page layouts). It is also in this phase where images are compressed and optimized to achieve the smallest file sizes possible, while at the same time maintaining image quality. Nick Myers will perform the cutting up of the design. He will be doing the majority of the template and page coding and is the best judge of how the site should be logically cut up.

It will take an estimated 25 hours.
Cost: 25 hours x \$60 hour = \$1,500

- 5.2 Creating Templates is a work item containing the work packages Global Elements Coding, Navigational System Coding, and Content Sections Coding. Templates will be constructed for each main site section (Movies, Games, Actors, Checkout Line). Templates will be further broken down into the sub sections of these main site sections. This will allow for easier maintenance and modifications in the future, in comparison to a non-template based site. Templates will allow a site

element, such as a navigation link, to be changed on the template and reflected on all pages created with that template.

The estimated total cost for this work item is \$4,500, and will take an estimated 75 hours of work by GD *Interactive*.

- 5.2.1** Global Elements Coding involves developing the template elements that will be represented across the entire site. This includes the University Video logo and tagline area, calls to cascading style sheets and java script files, and header and footer includes. Lead developer Nick Myers will perform the coding of the global elements.

It will take an estimated 45 hours.

Cost: 25 hours x \$60 hour = \$2,700

- 5.2.2** Navigational System Coding consists of developing the global and sub navigation systems to be used. The global navigation system is represented on all pages across the site to maintain consistency and usability. The global navigation for University video will take users to the major content sections of the site (Home, Movies, Games, Actors, and Checkout). The sub navigation will expand after a major content section has been selected. For instance, a user enters the web site and clicks on Games in the global navigation. The user will now be presented with the sub navigation elements “Action”, “Children’s”, “New Releases”, “Sports”, and “Strategy”. Lead developer Nick Myers will perform the coding of the sub navigation.

It will take an estimated 20 hours.

Cost: 20 hours x \$60 hour = \$1,200

- 5.2.3** Content Sections Coding involves coding the templates to allow for data input. In addition to the global elements defined in a template, it is necessary to designate and code content sections. These would include sections for page titles, summary paragraphs, reviews, biographies, etc. Lead developer Nick Myers will perform the coding of the sub navigation.

It will take an estimated 10 hours.

Cost: 10 hours x \$60 hour = \$600

- 5.3** Creating Pages is a work item that contains the work packages Apply Templates and Import Content. This is the work phase where content is merged with templates to create unique individual pages.

The estimated total cost for this work item is \$1,250, and will take an estimated 50 hours of work by GD *Interactive*.

5.3.1 Once the various templates have been created, it is necessary to define which individual pages are created from which templates. Obviously a web page highlighting a NFL 2001 for Play Station 2 should be created using the Games/Sports template. Richard Williams, who will be assisting Nick Myers, will perform this work package.

It will take an estimated 10 hours.

Cost: 10 hours x \$25 hour = \$250

5.3.2 Once individual pages have been created from their appropriate templates, the individual content for that page must be imported. For the NFL 2001 for Play Station 2 web page the game summary (supplied by the manufacturer), recommendations, and page title will be inserted into the page. Richard Williams, who will be assisting Nick Myers, will perform this work package.

It will take an estimated 40 hours.

Cost: 40 hours x \$25 hour = \$1,000

5.4 Page Testing is done by testing the completed pages for content quality, link integrity, functionality, and interoperability. Both project manger Glen Doss and lead developer Nick Myers will be performing this task. Glen Doss will be assuring that the site performs up to the set requirements and meets all required functionality. Nick Myers will also be extensively testing the site to make sure that it is performing optimally and that his code is working.

This task will take an estimated 53 hours.

Cost: 18 hours x \$80 = \$1,440

35 hours x \$60 = \$2,100 Total = \$3,540

Database Integration

6 Database Integration is a work item that contains the work packages Integrate Front-End with Back-End and Database Testing.

The estimated total cost for this work item is \$3,850, and will take an estimated 55 hours of work by *GD Interactive*.

6.1 Integrating the front-end web site with the back-end database is crucial to ensure reliable and efficient user transactions. The back-end SQL Server 2000 database is being hosted and maintained by One World Hosting. However it is *GD Interactive's* duty to integrate the new web site with the database in order to facilitate online transactions. Database developer Madhu Rao is the most experienced in database integration, and therefore will perform this work package.

It will take an estimated 30 hours.
Cost: 30 hours x \$70 hour = \$2,100

- 6.2** Database testing will be done to ensure that the system and database are functioning correctly. Sample data will be used to test various transaction situations. Database developer Madhu Rao is the most experienced in database integration, and therefore will perform the testing for the database integration.

It will take an estimated 25 hours.
Cost: 25 hours x \$70 hour = \$1,750

Requirement Completion Report

- 7** This report will be prepared to indicate that all set requirements have been addressed and satisfied, and that the web site is ready to be handed over to University Video and One World Hosting. Project manager Glen Doss will prepare the report.

The estimated total cost for this work item is \$160, and will take an estimated 2 hours of work by GD *Interactive*.