

## Summer Task 2

### Coursework write up

It is important that you **reference all sources** used.

- a) Create a report or presentation describing the **key phases** and **activities** at each of the phases in application development. This must include the **main characteristics** of each phase **including its position** within the product development cycle. **What would be produced at each stage** eg: the requirements analysis stage would produce user requirements, constraints, objectives and a feasibility study. This must be in your own words.
- Requirements analysis – methods of collecting information (client interviews, surveys, observation of work processes, looking at existing documentation and products etc)
  - Design – layouts, data flow diagrams, project plans (eg: Gantt charts etc)
  - Implementation/coding
  - Testing (e.g. unit, integration, product, acceptance) – test table examples
  - Deployment/Installation (must cover the different methods of deploying a new system e.g. Direct Method, Parallel Method, Phased Method and Pilot Method)
  - Maintenance (must cover the different types of maintenance e.g. Corrective, Perfective and Adaptive)

**I would expect to see a diagram to show the position of each phase in the application development life cycle.**

- b) Create a report on the key components that make up website construction. The report should describe the key components that make up a website.

Here is a list of what components to include (**explain each one, use images or diagrams where relevant and give examples. For each one say what it is, what is the purpose, what are the benefits etc?**)

- **domain name** - write about DNS, IP Addressing, Network address, how they work, give an example etc
- **the purpose of a site map** - why used, what can they illustrate (structure of website, links between web pages on the website etc), used by search engines (how) – Benefits? Examples?
- **the use of hyperlinks to join webpages** - You should explain; internal and external links, absolute and relative, site root, anchors, hotspots, images and text used as hyperlinks, software hyperlinks to open different software eg: documents, emails etc). How do they enhance the user's browsing experience? Examples?
- **the position, structure and purpose of a navigation bar** - why used, what do they contain (hyperlinks), their importance, think about menus, sub menus, how hyperlinks are grouped on topics or products, how they are laid out, continuity of position on webpages in a website, usability etc Examples?
- **page design** (e.g. navigation bar (usually set up in the master page, good navigation on a website should include as fewer clicks as possible), title (not the wording but the style and position on page), page content (will be different on every page but containers can be set up as to where this will be placed on each page to keep a consistent format), a plan for content management, (to add new content, change or update content, adhere to new legislation etc), styles for fonts (colours, sizes, emphasis), image settings (borders etc), templates (could be set in CSS in software like MS Expression or a master page in software like Dreamweaver or Serif WebPlus), colour themes (backgrounds, hyperlinks (used/not used etc)),

corporate image, layout, usability, consistency, clarity. Elements that would appear on every page (e.g. logo, navigation bar, company information etc) Example of layouts, print screens of CSS, Master Page etc

- **designing for different browsers and devices** - ensures websites work on different browsers and devices
  - responsive design for mobile/tablet technology – which devices, what happens to the pages?
  - how browser rendering can **affect the layout** of a webpage
  - an understanding of browser rendering engines as a key to performance; examples, what do they actually do?
  - importance of design that takes this into account, **what can happen when it is not considered** – how can effective testing help?
- **World Wide Web Consortium** – what is this organisation and what does it do, Why is it important (think about compatibility of file types images, sound, videos etc on the web, what would happen if there were no standards?). When browsers meet the set W3C standards, web pages appear consistent across different browsers.
  - open and closed standards (nothing to do with software) in web development
- **storage of data** (e.g. linking to a database or a csv file for example) – methods of data capture on a website (forms, feedback, reviews, user accounts, payment methods) storage methods, issues such as security and legal implications.
- **Methods of user interaction**
  - **Different methods of user interaction** – interactivity such as maps, blogs, forms, mailing lists, links to social media site, inserting smart objects, submit buttons, pop up menus, animated banners, rollover graphics, etc
  - **Use of existing tools** – (what you can add in web authoring software for example in Serif or Wix, but you couldn't add on software such as Kompozer or Microsoft Expression without coding in HTML or JavaScript or Flash. You can add video players, premade forms with submit buttons, photo galleries, widgets such as weather or traffic updates, animated banners, pop up menus, rollover graphics, HTML snippets etc
  - **Use of languages to add interactivity** – must cover Javascript, Flash and PHP what are they and what do they add?

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**The report must be in your own words and provide a comprehensive summary of your findings.**