



Faculty of Computers & Artificial Intelligence
2nd Term (2019-2020) Final Exam
Information Security and Digital Forensics Program
Course Code: FCS343 Level: 3rd level
Course name: Web Programming



Benha University
Final Date: 7 / 6 /2020
Total Marks: Pass / Fail
Examiner(s): Dr. Mohamed Taha

Research submission: From 31 May to 7 June 2020

a) **Write a research project in ONE of the following topics:**

Research Topics

- A research project is required for each student separately. No student is allowed to participate in the research within a group of students.
- The research project must address one of the following but not limited to:
 - 1- Online shopping
 - 2- Ticket reservation
 - 3- E-learning
 - 4- Hospital management
 - 5- Newspaper management
 - 6- Social media communication
 - 7- Gaming

b) **Notes: please, your research must contain the following elements:**

1- Website specification content

What should be included in a website specification?

Every website specification will be different. For example, a project might include both design and development, whereas another project might be a build only, with designs etc already completed.

However, there are some sections of a specification that will be common to most web projects. The following is a list of some of those common sections, with descriptions and examples included. You can pick and choose which of these to include, or add sections that aren't listed here.

Anything that is relevant to the project and that needs to be communicated should be included in your specification.

2- OVERVIEW

This section should give a basic overview of the project and the organization behind it. An overview could include:

- **About your organization** – A brief company background and history.
- **What problem are you trying to solve?** – Why is the project needed?
- **High-level project scope** – Is it a redesign of a few pages, a complete website overhaul, or a brand new website?
- **Target market** – An overview of who this website is targeted at. This could also be its own section in the document.

3- Project Team

A list of the decision makers involved in the project. It is useful to include job titles/project roles, and email addresses. The project lead should both be highlighted here. For example:

- Rachel Adams – CEO – racheladams@acme.co
- John Smith – Marketing Manager – johnsmith@acme.co
- Sarah Jones – Web Content Manager – sarahjones@acme.co – Project Lead

4- Phases

If this project is part of a bigger project, or there will be further phases following this project, it is useful to list these to give an indication of where this project fits into the bigger picture.

For example:

Phase 1 – Basic marketing website – Current project

Phase 2 – Add e-commerce

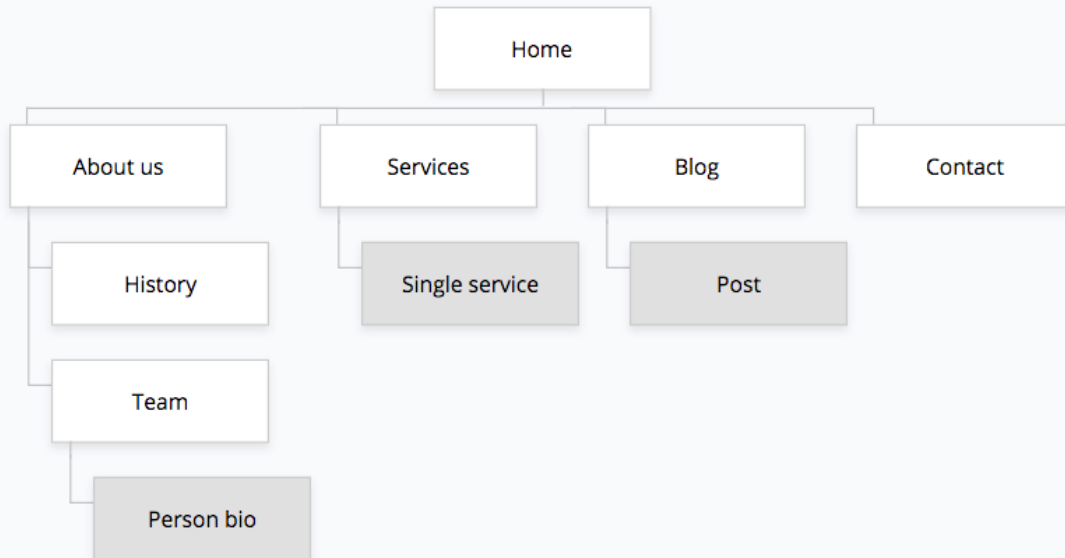
Phase 3 – CRM integration

5- Content structure

Content structure, or Information Architecture (IA), is comprised of various parts and will depend on the complexity and size of your website content.

Site map

This is usually provided as a diagram which shows the ‘tree’ type, hierarchical structure of the website pages. It can also include which ‘page template’ (see below) to use for each page and content type.



An example of a basic sitemap

Note:- There are excellent tools available for creating website sitemaps.

[We love Gloomaps.](#)

Content types

A website can contain many distinct types of content. At it's most basic, there will usually be posts and pages. A page is timeless content, e.g. 'About us', whereas a post is chronological, e.g. a news or blog post. Some other common examples of content types are:

- People
- Products
- Testimonials

Content type data

For each content type, the data associated with that content type should be listed. For example, if there was a 'Person' content type they might require the following data:

- First name
- Last name
- Position
- Bio
- Email address
- Phone number

Taxonomies

A taxonomy is a scheme of classification for your website content. You can set site-wide taxonomies to be used across all content types, or you can have taxonomies that are specific to certain content types.

For example, if you had a recipe website you might want a taxonomy of ‘meals’ where the taxonomy terms would be ‘breakfast’, ‘lunch’, ‘dinner’, ‘snacks’, ‘dessert’, etc. You could also have a taxonomy of ‘cuisine’, with terms such as ‘indian’, ‘british’, ‘french’, etc.

On a blog, the most common two taxonomies are ‘Categories’ and ‘Tags’.

There are two main types of taxonomy:

1. **Hierarchical** – e.g. ‘Categories’
2. **Non-hierarchical** – e.g. ‘Tags’

Another example might be an ‘Industry’ taxonomy, which you could assign to your ‘Blog’, ‘Client’, ‘Case study’, and ‘Service’ content types.

Page templates

A page template is a specific layout of information. For example, your ‘Home’ page will probably look different to your ‘Contact’ page.

Some examples of common page templates are below:

- Home
- Blog post
- ‘Our team’
- News archive – lists all the sites news posts in reverse chronological order
- Contact – may have a map and a form

If you have designs (wireframes or mockups) for these page templates please include them here.

6- Design

The content of this section will depend on whether a design already exists, or whether creating a design is part of the scope of work.

Design exists already

If design work has already been completed, then it can be referenced here.

There are many ways to provide design assets, for example:

- PDFs (annotated if possible)
- Invision project links
- Flat image files
- PSD files
- Sketch files

It is important to provide a style guide and/or annotations for information such as:

- colours
- typography rules
- hover states
- animations
- grid systems
- spacing

Responsive designs

Today’s websites are viewed on a wide range of devices and screen sizes. It is important to consider how your site will look, especially on small screens such as smartphones.

Mobile designs (and possibly tablet sizes) should be provided along with the usual desktop designs.

Design as part of the project scope

If the visual design is part of the project you will need to give guidance on the constraints and desired stylistic direction.

For example, if your organisation has brand guidelines that should be adhered to, they should be included here.

Each designer will have their own process, but it can help to provide:

- Brand guidelines – such as colours, fonts, logos, other graphic
- Print material – brochures, business cards, etc.
- Analysis of competition – what you like and don't like about their websites
- Examples, and reasons for, websites that you like and dislike

7- Functionality

Functionality is how your site actually works. This could be anything about specific parts of the website that need additional explanation.

For example, if you have a signup page, what fields are required? What happens to an entry on a contact form?

Many sites require integrations with third-party APIs. If this is the case then these integrations should be outlined here in terms of how they will work and any additional information that is needed. A good example of an integration is showing a feed of latest Tweets on your site.

Here are some examples of functionality you may want to mention, depending on your project.

- e-Commerce functionality such as payment gateways
- SSL – is this required and how it should be implemented
- Multi-lingual capabilities
- User roles and capabilities – more than 1 type of user role where users can have different permission etc.
- Analytics and tracking
- Specific functionality around search
- Performance requirements

8- Accessibility

Web accessibility is the practice of building websites that work for anyone, regardless of technology, location, or ability.

GOOD LUCK,

Examiner(s)

Dr. Mohamed Taha

Program Coordinator

Dr. Ahmed Taha