HTML, CSS & JavaScript
MidTerm Evaluation

Objectives:	To implement the provided textual content and images and produce a valid HTML page which uses an external CSS stylesheet to improve its look. HTML and CSS must be valid and correct, and follow good coding practices. The use of semantic elements is expected where appropriate.

Description (40 marks):

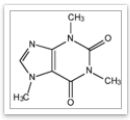
Your task is to produce a webpage based on the content (and images provided).
You will also be provided with a screenshot of what the page should look like.

cup_of_coffee.png

products_with_caffeine.png

caffeine.txt

coffee_bean_plant.png



chemical_formula.png

Grading:

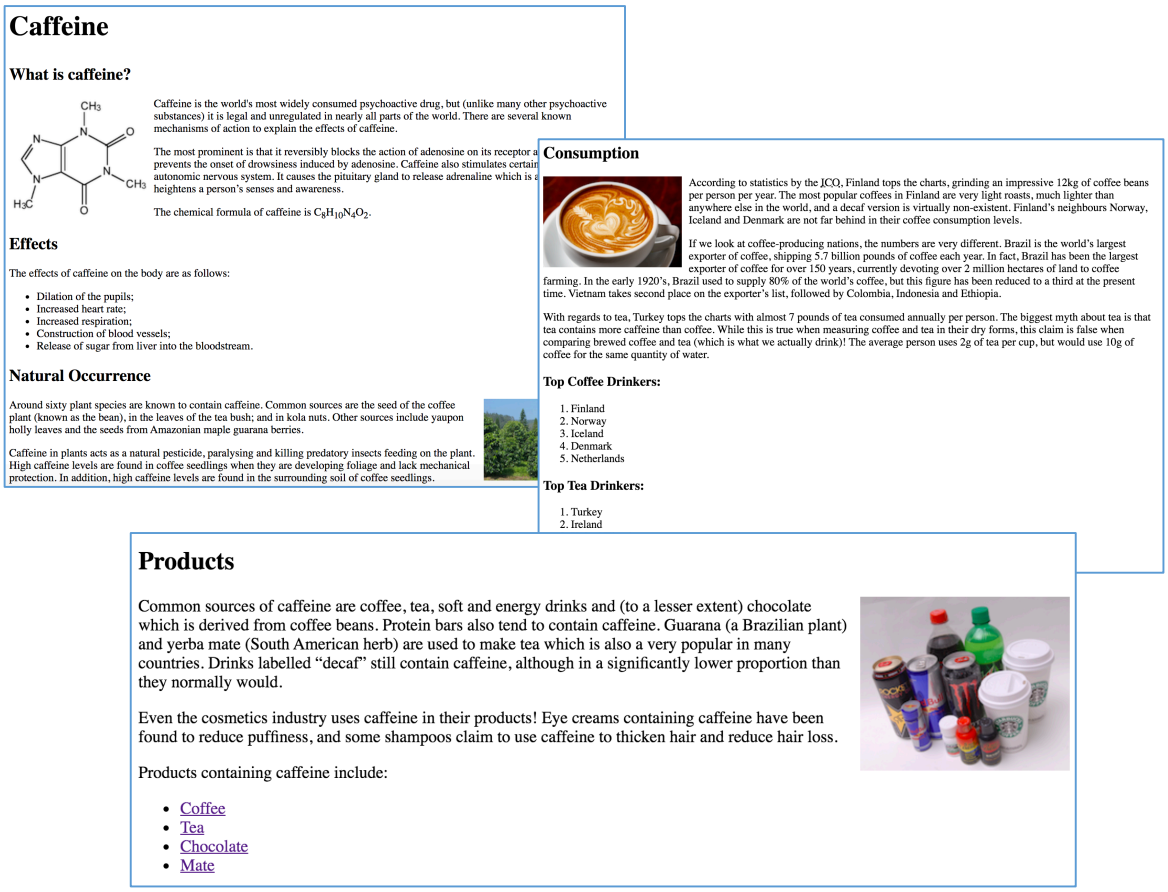
Marks will be assigned for the following:

- Correct and valid HTML code (with all required metatags).
- Correct and valid CSS code (styling all the elements in some way).
- Basic search engine optimisation (e.g. filenames and alt attribute text).
- Use of semantic elements where appropriate.
- Level of effort shown into making the page design look visually-appealing.

See notes (and sample screenshots) on the next page for more detail.

The following notes will help you to complete this task as required.

1. Images must have text wrapped around them as per the examples below.
2. Ordered and unordered lists must be created as required (see screenshot below).
3. Products containing caffeine must link to relevant Wikipedia page (open in new tab).
4. Interesting facts must be listed inside a table.
5. All HTML code must be valid and correct (use W3C online validator to help you).



Caffeine

What is caffeine?

Caffeine is the world's most widely consumed psychoactive drug, but (unlike many other psychoactive substances) it is legal and unregulated in nearly all parts of the world. There are several known mechanisms of action to explain the effects of caffeine.

The most prominent is that it reversibly blocks the action of adenosine on its receptor a prevents the onset of drowsiness induced by adenosine. Caffeine also stimulates certain autonomic nervous system. It causes the pituitary gland to release adrenaline which is heightens a person's senses and awareness.

The chemical formula of caffeine is $C_8H_{10}N_4O_2$.

Effects

The effects of caffeine on the body are as follows:

- Dilation of the pupils;
- Increased heart rate;
- Increased respiration;
- Construction of blood vessels;
- Release of sugar from liver into the bloodstream.

Natural Occurrence

Around sixty plant species are known to contain caffeine. Common sources are the seed of the coffee plant (known as the bean), in the leaves of the tea bush; and in kola nuts. Other sources include yaupon holly leaves and the seeds from Amazonian maple guarana berries.

Caffeine in plants acts as a natural pesticide, paralysing and killing predatory insects feeding on the plant. High caffeine levels are found in coffee seedlings when they are developing foliage and lack mechanical protection. In addition, high caffeine levels are found in the surrounding soil of coffee seedlings.

Consumption

According to statistics by the JCO, Finland tops the charts, grinding an impressive 12kg of coffee beans per person per year. The most popular coffees in Finland are very light roasts, much lighter than anywhere else in the world, and a decaf version is virtually non-existent. Finland's neighbours Norway, Iceland and Denmark are not far behind in their coffee consumption levels.

If we look at coffee-producing nations, the numbers are very different. Brazil is the world's largest exporter of coffee, shipping 5.7 billion pounds of coffee each year. In fact, Brazil has been the largest exporter of coffee for over 150 years, currently devoting over 2 million hectares of land to coffee farming. In the early 1920's, Brazil used to supply 80% of the world's coffee, but this figure has been reduced to a third at the present time. Vietnam takes second place on the exporter's list, followed by Colombia, Indonesia and Ethiopia.

With regards to tea, Turkey tops the charts with almost 7 pounds of tea consumed annually per person. The biggest myth about tea is that tea contains more caffeine than coffee. While this is true when measuring coffee and tea in their dry forms, this claim is false when comparing brewed coffee and tea (which is what we actually drink)! The average person uses 2g of tea per cup, but would use 10g of coffee for the same quantity of water.

Top Coffee Drinkers:

1. Finland
2. Norway
3. Iceland
4. Denmark
5. Netherlands

Top Tea Drinkers:

1. Turkey
2. Ireland

Products

Common sources of caffeine are coffee, tea, soft and energy drinks and (to a lesser extent) chocolate which is derived from coffee beans. Protein bars also tend to contain caffeine. Guarana (a Brazilian plant) and yerba mate (South American herb) are used to make tea which is also a very popular in many countries. Drinks labelled "decaf" still contain caffeine, although in a significantly lower proportion than they normally would.

Even the cosmetics industry uses caffeine in their products! Eye creams containing caffeine have been found to reduce puffiness, and some shampoos claim to use caffeine to thicken hair and reduce hair loss.

Products containing caffeine include:

- Coffee
- Tea
- Chocolate
- Mate

Use an external stylesheet containing multiple backgrounds, fonts, colours, borders and other CSS elements to make your page stand out from the rest.

Include the use of classes and IDs to demonstrate the power and control of CSS selectors and declarations.

Marks are also allocated for the use of CSS in layout in order to make your page unique!

Good Coding Practices:

You are expected to follow good coding practices as discussed throughout this course.
All HTML and CSS code must be valid and correct (use W3C online validator to help you).
The use of semantic elements is expected where appropriate.