

ASSIGNMENT 5 – XML and XML Schema

Objective of this compulsory assignment

The aim of this assignment is to store data using XML and practice the use of XML schema to validate simple and complex types in XML.

You may use any tool to validate your xml file with your xsd scheme, for example [XML Copy Editor](#).

Submission Instructions

Upload your .xml and .xsd file under **Assignment 5** by 10th of November 2020, 12:00 p.m.

PART 1

Convert the data (given in appendix A) into a properly formatted XML document. Make sure that the XML document is well-formed.

You may adapt the information to best suite a xml document, extracting attributes and finding appropriate data types for each value.

PART 2

Create XML Schema that can validate XML document created in PART 1 considering the following constraints:

- The minimum number of serves should be 2.
- The cooking time can't exceed 300 minutes.
- The oven type must take one of the following values {Gas, Fan}.
- The difficulty levels must take one of the following values {Easy, Medium, Professional}.
- A recipe can lack a special remark.
- A recipe needs to contain at least 2 ingredients.
- Each ingredient has attributed a quantity (that can be separated into number and units).
- The units used for cooking temperature must be one of the following values {°F, °C} (You may use "degrees fahrenheit" and "degrees celcius" if more convenient)

Appendix A

Recipe	Serves	Cooking time	Cooking temperature	Oven type	Difficulty	Special remarks
Pavlova	8	90 minutes	200 °F	Fan	Medium	Gluten-free
Carrot cake	10	30 minutes	160 °C	Gas	Easy	-

Recipe	Ingredient	Quantity
Pavlova	Egg whites	4 pieces
	Superfine sugar	200 grams
	Vanilla extract	1 teaspoon
	Cornstarch	1 teaspoon
	White vinegar	2 tablespoons
Carrot cake	All-purpose flour	250 grams
	Baking soda	2 teaspoons
	Cinnamon	1 teaspoon
	Sunflower oil	290 ml
	Superfine salt	½ teaspoons
	Sugar	200 grams
	Vanilla extract	1 teaspoon
	Grated carrots	3 cups
	Eggs	4 pieces