

CPS530 : Web Systems Development

Lab 06 > Creating Vector Images with SVG [Fall 2024]

I. Overview and Objectives

Scalable Vector Graphics (SVG) are an XML-based markup language for describing two-dimensional based vector graphics. As such, it's a text-based, open Web standard for describing images that can be rendered cleanly at any size and are designed specifically to work well with other web standards including CSS, DOM, JavaScript, and SMIL. SVG is, essentially, to graphics what HTML is to text.

The learning objective of this lab is to create some vector images using SVG.

Reading and related topics: Course slides ([Lesson #6](#)) and the following online resources:

https://archive.cs.ryerson.ca/user_guide.php#a93

https://www.w3schools.com/graphics/svg_intro.asp

<https://developer.mozilla.org/en-US/docs/Web/SVG>

<https://jenkov.com/tutorials/svg/index.html>

<https://www.tutorialspoint.com/svg/index.htm>

II. Lab Tasks

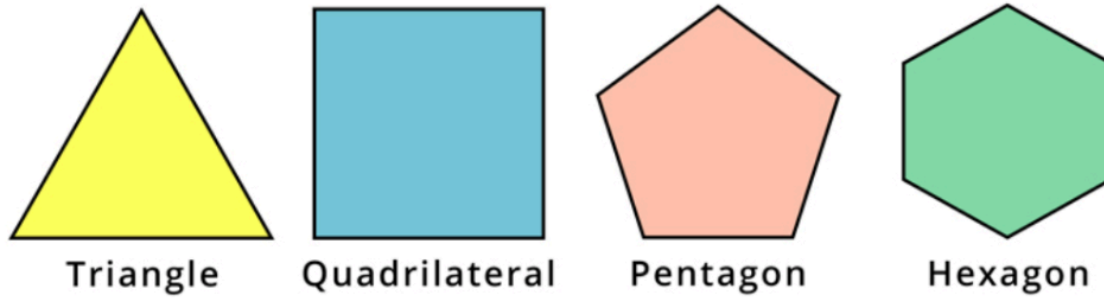
Create a one web page containing the solutions to all three problems. All images must be generated using SVG.

You must use manually written SVG code. The use of automatic generators will earn you 0 for the problem.

Problem 1:

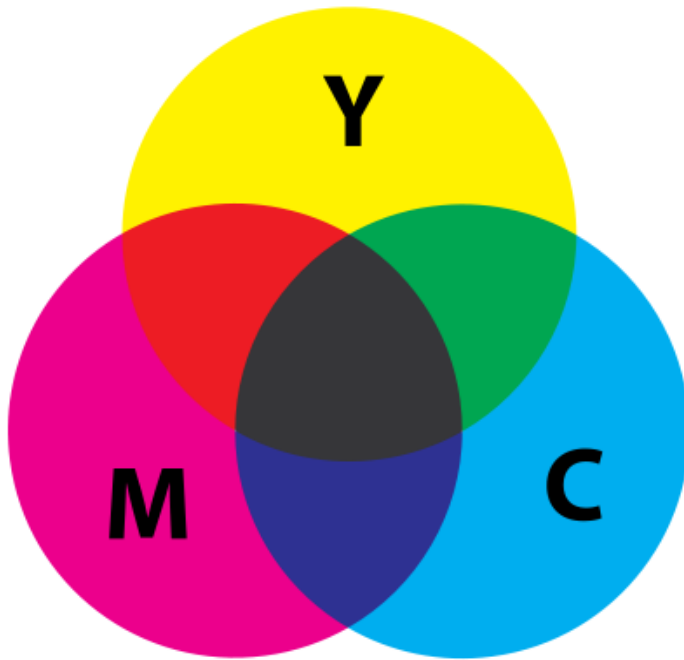
Reproduce the following display of polygons including colours and text using

only one single SVG file. Place this SVG image on a web page named **lab06.html**.



Problem 2:

Reproduce the following image including colours and text in one single SVG file. Use only three circle primitives and three text elements.



Problem 3:

Reproduce the following image in one single SVG file.



III. Submission Guidelines

- This lab is to be done individually.
- You must host your webpage on your CS student account (moon server) making it publicly available (www).
- Submit to D2L the complete webpage in a zip file containing all necessary assets.
- Provide the link to your live page (<https://...>) in the submission comment section.
- For submission you will have one **lab06.html** page that has the solutions to all three problems.
- Note that if your page is not hosted, you will get a zero grade. The assets alone will not be marked.
- You should submit your lab as soon as possible after your lab session using D2L.

Submissions will be accepted until **November 6, 2024 at 11:59 PM**. After that, the D2L submission box will become unavailable.

Have fun!

