Assignment

For this assignment we will create a program that solves the following **PPSP**:

A medium size GIS department needs to define new revenue streams. Estimating project plots costs is important for forecasting revenues. The money is needed to fund hardware and software purchases for the GIS. The GIS department is part of a provincial ministry and the budget is broken into STOB (standard objects) . The GIS department has a large budget for their plotters (paper and ink) but not hardware and software. Hardware is even more difficult to acquire as as it is considered a capital asset. Most GIS projects require maps on mylar or heavy paper and proofs on regular paper. Mylar costs about $1.00 an inch, heavy paper is about $0.75 and regular paper is $0.50. Depending on the type of plot there are different ink charges per inch: $0.50 for simple line work (e.g. dots on a map with a TRIM background), $1.00 for polygon themed work (e.g. VRI by age class) and $1.50 for ortho pots. Plots can be almost any size. A project can have a few or several maps but they are the same size. You need to maximize revenues.

PPPS

1. **Reword**: 'Plot run' calculator
2. **In**: costs for paper, costs for ink, dimension, number of plots
3. **Out**: Total
4. **Selections**: ink type, paper type, maximum dimension
5. **Loops**: For each project, For each plot set

Step 5 will not be done in this lab as we are focussing on selections

STEP 01	**Open IntelliJ** **Create a new Project** **Use the template** **Set the project name to:** m03_assignment **Ensure the project location is:** H:\var\gist\7010\wksp_dt\m03_assignment **Set the base package to:** bcit.gist7010
STEP 02	**Add a class header** **Add the Scanner snippet**
STEP 03	**Create three constants for the different pricing for the three types of paper** **Create three constants for the different pricing for the three types of ink**
STEP 04	**Create a data bucket for the type of paper to use (mylar, heavy, regular)** **Prompt the the use for the type of paper** **Set the value of your bucket**
STEP 05	**Create a data bucket for the type of plot (line, polygon, ortho)** **Prompt the the use for the type of plot** **Set the value of your bucket**
STEP 06	**Create a data bucket for the width of the plot** **Prompt the user for the width** **Set the value of your bucket**

STEP 07	**Create a data bucket for the height of the plot** **Prompt the user for the height** **Set the value of your bucket**
STEP 08	**Create a data bucket for the number of plots** **Prompt the use for the number of plots** **Set the value of your bucket**
STEP 09	**Create a data bucket for the ink charge** **Add a multipath selection that will resolve the ink type and charge** More variables could help
STEP 10	**Create a data bucket for the paper charge** **Add a multipath selection that will resolve the paper type and charge** More variables could help
STEP 11	**Calculate the cost based on the paper, ink type, maximum length and number of plots** cost = (paper + ink) * max(width, height) * number of plots
STEP 12	**Report the cost to the user**

Marking Guide

Item	Value
The tutorial works and is commented	2
The program works	5
Indentation is correct and consistent	1
Comments	2
Total	**10**