



Start Optimisation with PuLP

Optimisation with PuLP Wiki

Welcome!

You have just entered the Optimisation with PuLP Wiki. Using this wiki you can:

1. Learn how to use Python and PuLP to build mathematical models for optimisation
2. Look at existing case studies that use PuLP for optimisation
3. Learn the syntax of the Python language

We have assumed that students have completed either ENGSCI255 or STATS255 or their equivalent before using this wiki.

This wiki is used for learning/teaching in two courses in the Department of Engineering Science:

1. ENGSCI761 Computational Optimisation in Operations Research
2. OPSRES392 Optimisation in Management Science

How to Use this Wiki

This wiki contains case studies that begin with a description of an optimisation problem, followed by a "walk-through" formulation of the mathematical model in PuLP and finally the results from solving the model as well as some analysis and discussion. For each of these case studies you will have to complete a management summary of the problem, solution and some analysis.

Within each wiki page there will be several links to concepts as they arise. If you follow these links you will come to a page with a detailed description of the concept, perhaps some discussion and (if appropriate) some notes on the necessary Python syntax.

As well as the "walk-through" case studies there are several "do-it-yourself" (DIY) case studies. These case studies each have a problem description, with some discussion about its formulation, and some questions to be answered. For each of these case studies you will have to formulate a mathematical model in PuLP, solve the model and complete the management summary (be sure to answer the case study questions).

Adding Comments

Unlike traditional wikis you will not be able to edit these wiki pages directly. However, we encourage you to add your own comments at the bottom of each wiki page. We will continually monitor each page's comments for improvements to our wiki. We appreciate your help in improving this learning resource.



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