



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

COS 301

DEPARTMENT OF COMPUTER SCIENCE

User Manual

Group Members:

Student numbers:

Diana Obo

u13134885

Priscilla Madigoe

u13049128

Kudzai Muranga

u13278012

Sandile Khumalo

u12031748

July 29, 2016

IMPAKD LINK

For further references see [gitHub](#). July 29, 2016

Contents

1	Introduction	3
2	Vision	3
3	Background	3
4	System Overview	4
5	Installation	4
6	Getting Started	4
7	Using The System	4

1 Introduction

This document is a user manual for a property visualizer investment web application. It was developed by team IMPAKD for CSIR at the University of Pretoria (2016). This serves as a final year project for software development (COS 301). The code is available as open source on [gitHub](#). Below is a walkthrough of installation and guidelines on how to use the application. Advanced users who are familiar with coding are more than welcome to use their own way of installation.

2 Vision

The Property Investor Optimiser project's objective is to evaluate whether a certain rental property is worth buying. It does this by calculating the Return of Investment (ROI) of a property, which can be compared with another property's ROI, to assist a user to optimise their investment strategy according to their portfolio.

The project will assist the user by helping to answer the following questions:

- Given a certain bond (interest rate, deposit as a percentage of property value), rental (occupancy rate, agent commission, rental amount) and environmental conditions (Interest rate, inflation) what is the ROI?
- When is it better to pay a higher or lower deposit for a bond?
- Between two rental scenarios which provides the greater ROI?
- Is it better to try and pay off the bond as fast as possible by paying in extra capital?
- How does purchasing another property influence a user's ROI and at which point would this be a good idea?
- At which point does it make sense to buy another property?
- How much tax will the user have to pay?

3 Background

The project was given to us by our client, CSIR, so that we can research how the ROI of different configurations of rental properties can answer the questions listed in the Vision section of this document. Answers to these questions can be used to help users of the system choose to buy the best property that fits their portfolio and requirements with the ease of not having to manually evaluate the property themselves. The project can also be used for property-related research.

- 4 System Overview
- 5 Installation
- 6 Getting Started
- 7 Using The System