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| Geographical Info Systems  Assignment 3 – Report  Happy Valley Ski Area: Geographical Analysis | |
| Module code : CMPU4032: 2022-23 | |
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# Assignment Overview

## High Level Description

This document covers the design, implementation, and observations on all parts of the December 2022 CA(3) for the GIS module (TU060 – DS – Year 2).

The geographical focus of this report is on the…

# Maps and Data

## HVSA – Shaded Relief Map

The figure below is a relief map of the Happy Valley Ski Area, showing general elevation and key local tourist infrastructure.

Map

Description automatically generated

***Figure – Happy Valley ski Area***

## HVSA – Area Snow Depth Analysis

Calculate and symbolise the estimated mean annual snow depth across the entire area based on data gathered by the meteorological stations.

*Figure – ….*

## HVSA – Avalanche Risk Analysis

Derive and symbolise areas considered susceptible to avalanche risk based on the following simple rules,

1. Areas with a slope between 20 and 45 degrees,
2. Facing towards the prevailing wind (west in this case)
3. Not in forested areas.

*Figure – ….*

## HVSA – Potential Meteorological Station Locations

Derive and represent the optimum areas to locate a new meteorological station based on the following rules,

1. It must be at least 5Km from an existing met station,

1. It must be within 3Km from any road or piste
2. It must be in non-forested areas.

*Figure – ….*