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**FUNCTIONAL AND FINANCIAL FEASIBILITY
ANALYSIS OF GIS SOFTWARE**

A PROJECT REPORT PRESENTED BY

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ABSTRACT

Nothing could happen in data development, analysis & mapping without software, the most widely discussed aspect in GIS community. Initially GIS software was designed to UNIX operating system environment; but now its compatibilities are much spread out through Windows, Linux or Mac OS environment at the same level. Unfortunately due to the capabilities of the software & the demand; the cost which had incurred for software is rapidly increased by the GIS community. The leading GIS software developer ESRI has been developed GIS software in various disciplines with the very high price, which express their monopoly in the GIS community. As a result of high cost of software, a new trend has been arising to generate the crack or pirate copies instead of the originals of ESRI's products. According to the Intellectual property act, which was adopted in Sri Lanka in 1998, the use of pirate or crack copies is a violating of the act. The penalty which mentioned in act was either, two years in jail or fine of two hundred thousand Rupees or both.

It's learnt that much other software which was none directed to GIS, also have the same level of capabilities that similar to the ESRI's GIS software. As an example Imagine's

ERDAS for remote sensing, Bentley's Microstation for Photogrammetry, Autodesk's Autocad map for cad purpose could be considered.

In 1980 decade, the free & open source technology was introduced to the world. As alternative solution of ESRI's high security & high cost software, new GIS software was developed under free & open source technology. GRASS, QGIS, Mapwindow GIS & UDIG were the examples for free & open source GIS software. The specialty of that software is highly user friendly customization facilities, instead of Macros & Dynamic Link Libraries (dll) preparation in commercial software.

Meanwhile it's understood that no user in Sri Lanka, was directed to the proper cost benefit analysis when purchasing GIS software to them. As a result, user didn't achieve the full functionalities of software, with respect to the cost that they incurred.

Objectives of this research were directed to analysis the functional & financial feasibility of software, which were relevant to the user requirements. User requirements were identified by the user survey. Software feasibility was defined by the scoring system due to its functions.