Unit Learning Outcomes: LO1 Evaluate emerging Building Management System technologies. LO2 Assess how a Building Management System can optimise cost and energy usage. LO3 Discuss the differences between Building Management Systems for domestic and non-domestic buildings. LO4 Specify a Building Management System suitable for a large domestic installation. Scenario You have been employed by a medium-sized building services engineering firm. One of their potential clients, a property developer and management company which owns a number of commercial and multi-occupancy residential properties, is interested in the potential of Building Management Systems (BMS) to help them save money through better monitoring and control. Before hiring your firm to undertake the design and specification of BMS for their properties, they require further information and would like an example design. Your employer has given you the responsibility of preparing this information for the client. You are asked to prepare a report, explaining the following: • An in-depth evaluation of BMS explaining the principles of BMS and the different approaches to system integration. • How BMS may integrate with existing technologies. • show techniques for monitoring energy performance and how control and monitoring can improve the energy efficiency of the building. (create a data sheet to record energy costs and usage) • For two given buildings (one which incorporates a BMS and one that does not) compare the differences in energy costs and usage data. • justify recommendations for a BMS for the building which does not has a BMS. (Assessing tutor to provide suitable drawings and data for a range of properties) • Research and analyse the differences between domestic and non-domestic BMS in terms of hardware and software. • How BMS may optimise cost and energy efficiency – this should include: – an example energy cost assessment for two comparable buildings – an example of a BMS or building management technology that could improve the buildings’ performance. • The differences between BMS for domestic and non-domestic buildings. In addition to, and utilising information from the report, you are asked to develop a proposal for the integration of a BMS into one of the client’s large multi-occupancy domestic properties. (Assessing tutor to provide suitable drawings and data for a property or range of properties within the group) (suitable for a large domestic installation) You have been provided with drawings and current data for the properties available. Your design proposal should: • compare different BMS technologies, and justify the selections that are proposed • indicate cost for installation of the BMS • provide manufacturers’ supporting information, as necessary • indicate key locations of sensors and explain the reasoning for these locations.