CASA0003: Group Project Digital Visualisation Marking Scheme

	80-100 (Distinction)	70-79 (Distinction)	60-69 (Merit)	50-59 (C)	40-49 (D – narrow fail)	1-39 (Fail)
Visual Design	The visualisation(s) are brilliantly designed: aesthetically beautiful, functionally efficient and with excellent selection of visualisation types for the given research topic and datasets used. Cartographic and visualisation design principles are expertly understood and applied. Where multiple visualisations are used, their design is integrated and synthesised to create a brilliant whole.	The visualisation(s) are very well designed: aesthetically appealing, functionally efficient and with very good selection of visualisation types for the given research topic and datasets used. Cartographic and visualisation design principles are well understood and applied. Where multiple visualisations are used, their design is integrated to create a very successful whole.	The visualisation(s) are well designed: generally aesthetically appealing, functional, and with appropriate selection of visualisation types for the given research topic and datasets used, with some limitations. Cartographic and visualisation design principles are largely understood and applied. Where multiple visualisations are used, their design is coherent though integration could be improved.	The visualisation(s) are inconsistently designed with significant limitations. This could include problems in cartographic design, and flaws in the selection of appropriate visualisation types for the given research topic and datasets used. There are substantial limitations and gaps in the understanding of cartographic and visualisation design principles. Where multiple visualisations are used, their design is not coherent and the project lacks integration.	The visualisation(s) are poorly designed with severe limitations and flaws. This could include major flaws in cartographic design, and inappropriate selection of visualisation types for the given research topic and datasets used. There is very little understanding of cartographic and visualisation design principles. Where multiple visualisations are used, their design is highly incoherent and the project fails to add up to an integrated whole.	The visualisation(s) show no effort with design; are fundamentally flawed and incomplete. There is no understanding of cartographic and visualisation design principles. Where multiple visualisations are used, they are completely incoherent and there is no effort towards a larger integrated project.
Research Design & Communication	The project topic developed is highly engaging, with genuine substance and data science interest, synthesising	The project topic developed is very engaging, with substance and data science interest, synthesising ideas	The project topic developed is engaging, with some depth and data science interest. A reasonable range of relevant and	The project topic developed has some flaws in terms of lacking depth and/or engaging with wider data science concepts.	The project topic developed is highly flawed, superficial and/or is irrelevant to the wider data science degree. Very few	The project topic is not developed, shows very little effort and/or is entirely flawed with no substance. No

	ideas from the wider MSc/MRes degree. An impressive range of relevant and complementary datasets have been sourced. These are skilfully explored and communicated to provide insight and analysis into the research topic that is highly engaging, accessible for a general audience and scientifically rigorous.	from the wider MSc/MRes degree. A range of relevant and complementary datasets have been sourced. These are skilfully explored and communicated to provide insight and analysis into the research topic that is engaging, accessible for a general audience and scientifically rigorous.	complementary datasets have been sourced. These are generally well explored and communicated to provide insight and analysis into the research topic that is generally engaging for a wider audience. There may be some limitations in scientific rigour and in the communication of research concepts.	Some relevant and complementary datasets have been sourced, though there are clear gaps. Research communication has problems in terms of lacking engagement and interest for a wider audience, and having significant limitations in terms of scientific rigour.	relevant and complementary datasets have been sourced. Research communication is very poor, lacking engagement and interest for a wider audience, and scientific rigour is absent.	relevant or complementary datasets have been sourced. No effort has been made to communicate the research in an engaging and scientifically rigorous way.
Technical Sophistication	The project is highly technically sophisticated, combining brilliant skills in data manipulation, storage, visualisation and interactivity. Excellent visualisation libraries and spatial analysis tools are utilised successfully to create high performance robust visualisations that (where appropriate) are fully functional on major web browsers, and meet web standards. Where possible,	The project is technically sophisticated, combining very good skills in data manipulation, storage, visualisation and interactivity. Very good visualisation libraries and spatial analysis tools are utilised successfully to create high performance robust visualisations that (where appropriate) are fully functional on major web browsers, and meet web standards. Where	The project is technically effective, combining good skills in data manipulation, storage, visualisation and interactivity, with some limitations. Appropriate visualisation libraries and spatial analysis tools are utilised successfully to create functional visualisations that (where appropriate) work on most web browsers, and largely meet web standards. There may be limitations in technical	The project is technically inconsistent, with mixed skills in data manipulation, storage, visualisation and interactivity, including significant limitations. Visualisation libraries and spatial analysis tools used are too basic/and or inappropriate for the project. Project functionality is mixed, and may include some significant errors and performance limitations. The project data and code	The project is technically very poor, with severe flaws in data manipulation, storage, visualisation and interactivity. Visualisation libraries and spatial analysis tools used are very basic/and or absent. Project functionality is highly flawed and important aspects of the visualisations do not function.	The project is technically extremely poor, with comprehensive fundamental flaws in data manipulation, storage, visualisation and interactivity. Visualisation libraries and spatial analysis tools used are absent. Project functionality is highly flawed and important aspects of the visualisations do not function.

	visualisation code and data is open and shared online to meet open science principles.	possible, visualisation code and data is open and shared online to meet open science principles.	functionality, and limitations in how the data and code have been shared online.	has not been shared online, or the sharing is highly flawed.		
Innovation & Creativity	The project is highly innovative going beyond the core taught materials to display creativity and research progress in all of the following areas- visualisation design; interactivity; use of new datasets; and technical implementation. The project experiments with a range of different visualisation approaches, including different 2D visualisation methods and/or 3D visualisation methods (including AR/VR) and/or new ways of integrating and synthesising multiple visualisations together.	The project is innovative going beyond the core taught materials to display creativity and research progress in some of the following areas- visualisation design; interactivity; use of new datasets; and technical implementation. The project shows some experimentation with different visualisation approaches, including different 2D visualisation methods and/or 3D visualisation methods (including AR/VR) and/or new ways of integrating and synthesising multiple visualisations together.	The project largely follows core taught materials, but includes some creativity and research progress in any of the following areas- visualisation design; interactivity; use of new datasets; and technical implementation. The project has limited experimentation with different visualisation approaches, including different 2D visualisation methods and/or 3D visualisation methods (including AR/VR) and/or new ways of integrating and synthesising multiple visualisations together.	The project does not go beyond core taught materials. Limited creativity is shown within the areas of visualisation design; interactivity; use of new datasets; and technical implementation. The project largely does not experiment with different visualisation methods beyond the taught materials in class.	The project fails to meet the level of the core taught materials. No creativity is shown within the areas of visualisation design; interactivity; use of new datasets; and technical implementation. The project shows no experimentation with different visualisation materials, and does not meet the level of the class examples.	The project shows very little effort, unable to meet the level of the most basic taught materials. Creativity is completely absent within the areas of visualisation design; interactivity; use of new datasets; and technical implementation. The project shows no experimentation with different visualisation materials, and does not meet the level of the most basic class examples.