GY476 SUMMATIVE ASSESSMENT
CRITERIA

INTENDED LEARNING OUTCOMES TESTED BY THE ASSESSMENT

1. Ability to apply GIS methods to social science research;
2. Capacity to source geographic data and input into a GIS system;
3. Ability to manipulate and query spatial data;
4. Clearly and effectively visualise spatial data;
5. Perform appropriate analyses of spatial data.

ASSESSMENT CRITERIA

1. **Depth of insights:** The topic is clearly and precisely defined. The project critically reflects on the potential strengths and limitations of the data used and analyses performed. Decisions on tools and visualisation techniques are well substantiated. The project provides insightful insights from spatial analysis outputs and integrates findings from social science literature to enhance understanding of the broader context. (ILO 1, 5).
2. **Sourcing and preparing geographic data:** The geographic data is sourced and appropriately prepared for visualisation and analysis (ILO 2, 3).
3. **Methods and Manipulation:** The methods and manipulations (query, select, join data etc.) are appropriate to the research project. The manipulations are clearly presented, explained and evaluated in terms of their strengths and weaknesses if relevant. The project demonstrates an understanding of coordinate reference systems and an ability to create and calculate new variables (ILO 3).
4. **Explanatory Visualisation:** Geo-visualisation in the project is clear and effective. Map outputs are appropriately presented with adequate symbology, title, scale indicator, orientation, legend, etc. (ILO 4).
5. **Strength of spatial analysis:** The choice of spatial analysis is clearly performed and justified. The project demonstrates an understanding of the methods of analysis and an ability to critically evaluate their strengths and limitations (ILO 1, 5).
6. **Conclusions:** There is a concise and clear discussion of the findings (ILO 1).
7. **Structure, style, and presentation:** The material is structured in an appropriate manner, and clearly organised in a way that leads the reader easily between Ordinary text (in English), Computer input (R-markdown code, or brief descriptions of tools/packages used) and Computer output (Maps or other). The writing is succinct and easy to read, and the results are presented clearly (ILO 1).

MARKING

Marks are awarded on how successful the project is in meeting these assessment criteria above.

High Distinction 85+: The code runs and produces the expected output, or the descriptions of tools/packages are enough to make the results reproducible. There is extensive documentation, properly formatted, explaining its logic. The project provides an excellent reflection of the spatial data and analyses used. The included maps are clear and communicate their intended message effectively. The code or tools/packages chosen contain novel contributions that extend/improve the functionality the student was provided with (e.g. algorithm optimizations, novel methods to perform tasks, etc.). The project demonstrates extensive engagement with at least five relevant sources, with the student drawing high-quality sources to inform the project's context. The material is well-structured and follows a logical flow, with a professional style and clear presentation.

Low Distinction 70-84: The code runs and produces the expected output, or the descriptions of tools/packages are enough to make the results reproducible. There is extensive documentation, properly formatted, explaining its logic. The project provides an excellent reflection of the spatial data and analyses used. The included maps are clear and communicate their intended message effectively. The code or tools/packages chosen also include evidence of skills presented in the more advanced spatial analysis sections of the course. The project makes strong use of at least five sources, with the literature well integrated to support the analysis and contextualise the broader context. The material is well-structured and follows a logical flow, with a professional style and clear presentation.

Merit 60-69: The code runs and produces the expected output, or the descriptions of tools/packages are enough to make the results reproducible. There is good documentation, properly formatted, explaining its logic. The project provides a good reflection of the spatial data and analyses used. The included maps are clear and communicate their intended message effectively. The project engages with at least five sources, though the integration of literature may lack depth or clarity in certain areas. The material is well-structured and follows a logical flow, though there may be minor lapses in style or presentation.

High Pass 55-59: The code runs and produces some of the expected output, or the descriptions of tools/packages are enough to make some of the results reproducible. There is some documentation explaining its logic. The project provides some reflection of the spatial data and analyses used. The included maps are clear, but do not communicate their message effectively. The project cites at least five sources, though the engagement with literature may be minimal or underdeveloped in terms of linking to the spatial analysis. The structure is generally clear, but there might be some aspects that are less smooth or cause confusion.

Low Pass 50-54: The code partially runs and produces some of the expected output, or some descriptions of tools/packages are included that make some of the results reproducible. There is some

documentation explaining its logic. The project provides some reflection of the spatial data and analyses used, but some of it is insufficient. The included maps are not always clear, and do not communicate their intended message. The use of literature is superficial, lacking in-depth engagement or relevance to the spatial analysis. The structure is somewhat clear, but some aspects might be inconsistent or cause difficulty for the reader.

Fail <50: Weak in all or nearly all aspects. Shows few signs that the candidate has understood the course content or can execute the basic tasks required. The code partially runs and/or some descriptions of tools/packages are noted, but they do not generate the expected output. There is no documentation explaining its logic. The project provides no reflection of the spatial data used. The included maps are unclear and do not attempt to tell a story. The literature used is irrelevant or unrelated to the spatial analysis. The structure lacks clarity, making the material difficult to follow.