



DUE: 17.00, SATURDAY, 27 MARCH 2021



CM5033

DATA COMMUNICATION

ASSIGNMENT 1: Analysis & Reporting on Crime

OVERVIEW

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ASSIGNMENT 1

- Individual students must produce **an analytical data report and press release based on two linked supplied datasets**, as well as **a rationale for their choices made in data communication, for specific audiences and purposes.**
- The assignment requires the analysis and comparison of two consecutive pre-pandemic years' crime logs (2018, 2019), for a large town, the production of data-supported conclusions.
- The report, press release, and rationale should judiciously apply relevant statistical measures and methods from the module to date, as well as showing competency in identifying possible issues with data literacy and biases, particular to the audiences.
- **The submission must be made on or before the deadline: Saturday, 27 March 2021, 17.00 (End of Week 10)**
(Note: This briefing is available from Week 05, and a workshop for this assignment takes place in Week 09)
- Late submissions will be subject to the School of Communications late policy (*grade penalised at 5% per day up to 5 days, after which zero*)

(FICTIONAL) CRIME LOGS

- Crime log datasets are provided (*as comma separated values files, .csv*) for the reported crimes in a *fictional* Irish large town, comparable with Athlone, Co. Westmeath. (Population: ~21,000)
- The logs indicate all reported crimes in **2018** (n=756), and **2019** (n=682), showing an almost 10% decrease overall.
- Gardaí (*Irish police*) note that they specifically undertook new local communication and deployment strategies throughout 2019 aimed at reducing **thefts**. A very significant drop in thefts is noted, but many Gardaí are uncertain about the overall effect of the strategy and the possible consequences for other criminality.
- Each datapoint includes variables for: the **id** for the crime in that year, the **date** the crime took place, the **weekday**, the **hour** the crime occurred (0-23), the **district** of the town (as a coded integer), the **ICCS** classification number, and a **text description** of the crime type.
- The datasets represent anonymised crime reports for each instance, stripped of identifying information (*names, particulars of the crime, specifics of location or exact time, etc.*) and are typical of the type of data used for analysis in policy-making, reporting, and sociological study.

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CODING: DISTRICT

- Areas of the fictional town are coded by **district type**, as follows:
- **0**: Not Specified / Non-Geographic
- **1**: Urban Centre - Commercial Areas
- **2**: Urban Centre - Residential Areas
- **3**: Industrial Park
- **4**: Suburban Residential Areas
- **5**: Parks and Sports Facilities
- **6**: Cultural and Religious Buildings/Areas

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CODING: ICCS NUMBER

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- Crimes are coded using the categorisation values of the Irish Central Statistics Office (CSO) Irish Crime Classification System (ICCS), 2008
<https://www.cso.ie/en/media/csoie/releasespublications/documents/crimejustice/current/crimeclassification.pdf>
- *1: Homicide Offences*
- **2: Sexual Offences**
- **3: Attempts to Murder, Assaults, Harrassments**
- **4: Dangerous or Negligent Acts**
- **5: Kidnapping and related offences**
- **6: Robbery, Extortion, and Highjacking offences**
- **7: Burglary and related offences**
- **8: Theft and related offences**
- **9: Fraud, Deception, and related offences**
- **10: Controlled Drug offences**
- **11: Weapons and Explosives offences**
- **12: Damage to Property and the Environment**
- **13: Public Order and Other Social Code offences**
- *14: Road Traffic Offences*
- *15: Offences against the Government, Justice Procedures, or involving Organised Crime*
- *16: Offences Not Elsewhere Classified*

CSV FILES

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CM5033_2021_Assignment01_CRIME_DATA_2018

crime_id	date	weekday	hour	district	iccs	description
1	1/1/2018	Monday	1	2	13	Drunken Disorderly Behaviour
2	1/1/2018	Monday	1	1	13	Drunken Disorderly Behaviour
3	1/1/2018	Monday	1	1	13	Drunken Disorderly Behaviour
4	1/1/2018	Monday	2	1	13	Drunken Disorderly Behaviour
5	1/1/2018	Monday	2	2	4	In charge of a vehicle while over the legal alcohol limit
6	1/1/2018	Monday	3	4	4	In charge of a vehicle while over the legal alcohol limit
7	2/1/2018	Tuesday	22	1	4	Speeding
8	2/1/2018	Tuesday	1	4	4	Speeding
9	3/1/2018	Wednesday	15	2	7	Burglary
10	3/1/2018	Wednesday	0	2	13	Drunken Disorderly Behaviour
11	4/1/2018	Thursday	1	1	13	Drunken Disorderly Behaviour
12	4/1/2018	Thursday	12	5	4	Speeding
13	4/1/2018	Thursday	23	2	4	Speeding
14	5/1/2018	Friday	14	4	10	Possession of Illegal Drugs for Personal Use
15	5/1/2018	Friday	0	2	13	Drunken Disorderly Behaviour
16	5/1/2018	Friday	15	1	8	Theft
17	5/1/2018	Friday	3	3	13	Drunken Disorderly Behaviour
18	6/1/2018	Saturday	21	2	8	Theft
19	6/1/2018	Saturday	12	2	2	Sexual Assault
20	6/1/2018	Saturday	2	2	13	Drunken Disorderly Behaviour

PART 1: REPORT

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- Emerging from the 2020/2021 COVID-19 period, senior Gardaí and policy-makers wish to use pre-pandemic crime reporting to consider whether local policing strategies were effective and should be introduced nationally. This town's 2019 *policing to reduce theft* is one such case study.
- Complete a **2000 - 2500 word data analysis report** outlining the data measures, trends across the two-year period, and any correlations or patterns you deem relevant, in your goal of providing a coherent overview of how crime patterns changed in this town from 2018 to 2019.
- Include a **short introduction** summarising your principal findings and a **conclusion** section making any relevant recommendations for how this data might be supplemented, different categorised, or otherwise provide for an improved analysis in future years.
- Provide any replications or reorganisations of the initial data, any tables, graphs, visualisation, etc., as **appendices** to your report.
 - You must include at least three graphs/visualisations, at minimum.
- In your report and especially in your conclusions, **thoroughly address the strategy changes in 2019 acknowledged by the Gardaí (to mitigate theft offences)**, providing your analysis of the effectiveness of their measures, and any resulting changes for other crime types.

PART 2: PRESS RELEASE

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- Your completed data report, which is intended for the specific expert audience of Senior Gardaí and Policy-makers, should be accompanied by a **300 - 500** word press release.
- The press release is intended for general distribution (*i.e. should not be strongly editorialised*) and should summarise the main findings and recommendations of the report for a public non-expert audience.
- The press release should take the form of a proposed headline, (sub-headlines), and article text, that offers journalists and publications a strong basis for immediate printing.
- Extensive editor's notes are not required, though you may wish to briefly make reference to key related areas of the data report, or to suggest appropriate visualisations that might accompany the article.
- Examples of the structure and format of such a press release may be found on the websites of the Central Bank of Ireland, and the Central Statistics Office:

<https://www.centralbank.ie/news-media/press-releases>

<https://www.cso.ie/en/csolatestnews/pressreleases/2021pressreleases/>

PART 3: RATIONALE

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- In addition to your report and press release, include a **Data Communication Rationale** document, of 1200 - 1500 words, discussing your choices in analysis and reporting.
- **Provide a thorough overview of the analyses you made**, results you anticipated, the conclusions you drew, and state why you used the measures/tools/methods you did.
- Specifically address any cases where you found **outlier** data which you discounted or accommodated for, indicating a rationale for why.
- Discuss the choices you made in reporting in Part 1 to a specific audience (Senior Gardaí, Policy-makers) versus in Part 2 for a general audience, drawing particular attention to how you summarised the most important findings for a general press release.
- Discuss any biases, caveats, or limitations in your analysis and conclusions.

DELIVERABLES

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- Submit, **via loop**, a **ZIP** file of a folder structure named with the module code, assignment number, and your student id (e.g. *CM5033_Assignment1_12345678.zip*), and containing the following specified files:
 - A **PDF** document, entitled "**Data Report**", comprising the main report, with appended and organised visualisations and/or tables.
 - A **PDF** document, entitled "**Press Release**", comprising the public press release, with any brief editor's notes.
 - A **PDF** document, entitled "**Data Communication Rationale**", comprising the rationale document described previously.
 - *(Optionally, but advisedly...)* A **subfolder**, entitled "**Supporting Files**", including electronic files that show your analytical work - e.g. Excel / Numbers / Etc. files showing the calculations, sortings, etc.
- Failure to meet the requirements for deliverables may result in a zero grade.



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