Analysis Report

## Musical tastes between Australian demographics

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Research Question

music tastes, preferences and genres have changed massively over time and are notably different between demographics of people, what similarities and differences do these demographics have in terms of listening habits, favourite artists, favourite genres and ways of listening to music.

# Data Requirements

# How much different Australian demographics of people listen to music

* How popular different artists are
* How popular artists differ between demographics
* Methods of listening to music among a group
* Australian Music revenue data
* Music news articles
* A list of different Australian demographics
  + Gender
  + Age group
  + Geographic origin
  + Heritage
  + Profession

# Functional Requirements

# A range of both primary and secondary data used

* A variety of static graphs used
* Complex data displayed in a way simple to understand
* small paragraphs of analysis on news articles included
* educates audience on the similarities and differences of how different demographics of people listen to music

# Non functional Requirements

* easy to read colour scheme with a high enough contrast
* appealing visuals included
* infographic is consistent in its style and design
* all secondary data is current (2024-2021)
* all charts follow necessary conventions
* data comes from reliable sources

# Constraints

Economic

* Sat will have to be completed by end of august
* All sourced data needs to be free
* People will be needed to give primary data on their listening habits

Technical

* Requires the use of school laptops
* Due the infographic being a physical object no dynamic charts allowed
* Data will be formatted and transformed through either Excel or Airtable
* Skill in an infographic creation software will be needed for the creation
* Small amount of secondary data available

Legal

* All participants in primary data collection will have fully consented to the data collection
* All data will be properly referenced
* All data will be legally obtained

social

* Any secondary data collected will be from trustworthy sources
* Only Australians will receive survey

Scope Statement

The solution will present all data collected that relates to the research question in a meaningful way that is still easy to read and understand. This will be achieved by using a variety of bar charts, pie charts and small analytical paragraphs talking about any news articles used within the infographic. The infographic will clearly answer the research question, providing an answer as to whether of not listening habits are similar between demographics. It will use data that was collected from 2021 – 2024 and only from reliable sources . the data will include a large amount of primary data that focuses on things like listening time, why they listen, who they listen to and what they listen on. The solution will contain a visually appealing colour scheme with a good enough contrast for it be easily readable. The solution will be consistent in its design. All data will be properly referenced and legally obtained.

Due to the constraints the solution will not contain any dynamic charts or graphs. This is due to the solution being presented as an infographic, which is to be printed. The solution will also not contain any old or historical data for comparison as it very hard to find said data. The data will mostly be from primary sources, as such, the ability to create a detailed and informative survey will be needed. The solution will need to be completed by the end of august, because of this it would be difficult to receive a large amount of primary data.

Critical And Creative Thinking

# Data Requirements

# How much different demographics of people listen to music

* How long do participants listen to music daily?
  + Have participants input how much they listen to music daily (0-1hr, 1-2, etc)
* How often do participants listen to music?
  + Have paticipants answer how often they listen to music in the week (everyday, very rarely, etc)

How popular different artists are

* How do we know if an artist is popular?
  + Use spotify charts and other data sources to find out which artists are the most listened to
  + Group participant fav artist data and see which artist appears the most

How popular artists differ between demographics

* How can we differentiate which artists are popular between different demographics?
  + Only primary data could be used to easily obtain this data
  + Sort most popular artists by demographic

Methods of listening to music among a group

* how do we figure out what different demographics use to listen to music?
  + Ask participants what format they like using when listening to music (cd, vinyl, streaming, mp3 player)
* How can we get more specific than just ‘music streaming’
  + Ask participants what form of software they use to listen online (Spotify, Apple music, YouTube, SoundCloud, etc)

Global Music revenue data

* how can we find such data?
  + Use websites like the IFPI or the RIAA to collect revenue data
* How is this data useful?
  + It can provide insight about which countries and what people within those countries listen to and how much they listen

Music news articles

* Is collected secondary data actually useful?
  + Make sure data is free from bias
  + Make sure data is reliable and has integrity
  + Make sure data is relevant by only using articles that talk about specific demographics of music listeners
* Is data displayable?
  + Paraphrase and compact longer articles into small single paragraphs of information that can be added to the infographic

A list of different demographics (gender, age, etc)

* What demographics are going to be explored through the project?
  + Age
  + Gender
  + Geographic origin
  + Heritage

**Functional Requirements:**

# A range of both primary and secondary data used

* How can data be collected from many consenting individuals at once in a short time frame?
  + Create and send a thorough survery that is both informative and easy to fill out
  + Have question like favourite artist, have a list of most artists and have participants select which ones they listen to, why they listen to music, ect
* Is the secondary data used reliable and informative?
  + Make sure that any revenue data comes from official sources that create financial reports on this
  + Only use news articles that are free from bias

A variety of static graphs used

* Do used graphs properly display data?
  + Make sure that the data displayed on the graphs is complete and relevant
* Do the graphs display the data that they’re supposed to?
  + Make sure that graphs are used for their regular purposes (pie chart for percentages, line chart for trends over time, etc)

Complex data displayed in a way simple to understand

* Can any included analytical paragraphs be understood easily?
  + Make sure said paragraphs are proofread by multiple people
  + Run paragraphs through software that rates its legibility and improve from there
* Do visual data representations assist in the understanding of the data?
  + Include some explanation into why a chart is included
  + Make sure graphs are comprehensive

information educates audiences on the similarities and differences of how different demographics of people listen to music

* Does information educate audiences?
  + Make sure a variety of data and information is included
  + Make sure that data is properly and completely explained

# **Non functional Requirements:**

easy to read colour scheme with a high enough contrast

* Is the colour scheme readable?
  + Use websites and aplications that choose easily readable colour schemes
  + Ask multiple people about how easy it is to read

appealing visuals included

* Are visuals included?
  + Create a collection of photos and designs that can be added to infographics
* have all visuals been legally obtained?
  + make sure all data is from free sources
  + do research to check if any photos or designs have been given out as free use from the creator

infographic is consistent in its style and design

* are the visuals consistent?
  + make sure any visuals look similar or are gotten from the same source
* are visuals cohesive?
  + Make sure infographic is not cluttered with its mixture of graphs and visuals
  + Make sure nothing overlaps and everything is still readable

all secondary data is current (2024-2021)

* are news articles up to date?
  + Check publishing date of any used news articles
  + Only use article published 2021 - 2024

all charts follow necessary conventions

* do charts follow conventions?
  + Check over graphs and make sure they follow any conventions
  + Make sure graphs are named appropriately

data comes from reliable sources

* Is the data reliable
  + Check if source comes official sites, like government sites or .orgs
  + Check any sources other sites have used and see if they’re good