

# DESIGN PROBLEM

In the “gud ole dayz”, the only option people had for listening to music in their vehicles was the local radio stations. You would set the presets on your radio to tune into these specific frequencies. Some radios had a button you could press that would reset the presets to match the frequencies for the radio stations in whatever city you were in when you were travelling.

For this problem, assume that:

- The presets on the radio are for specific genres of music (i.e. rock, jazz, country, and classical).
- In a radio signal is information about the genre of music played by the radio station.
- The person will stay within southern Alberta (i.e. Lethbridge, Calgary, and Medicine Hat).

The following table provides a listing of the radio stations for the three towns with radio stations.

GENRE	LETHBRIDGE	CALGARY	MEDICINE HAT
ROCK	Rock 106.7	Virgin Radio 98.5	Rock 105.3
JAZZ	Smooth Jazz 104.3	CBC Music 102.1	Jazz Café 93.7
COUNTRY	Country 95.5	Country 105.1	Chat 94.5
CLASSICAL	Classical 98.1	CBC Music 102.1	CBC Music 102.1

**Write a small C++ program that uses a design pattern to simulate such a radio.** A `main()` is provided to guide you in creating the program. Also provided are header files for the radio (`Radio.h`), a radio station (`Station.h`) and enums for the cities and music genres (`Enums.h`). The output of the program is:

```
This is Rock 106.7!
This is Smooth Jazz 104.3!
This is Country 95.5!
This is Classical 98.1!

This is Virgin Radio 98.5!
This is CBC Music 102.1!
This is Country 105.1!
This is CBC Music 102.1!

This is Rock 105.3!
This is Jazz Cafe 93.7!
This is Chat 94.5!
This is CBC Music 102.1!
```