base64_decode

Submit Solution

Create files `base64.h` and `base64.cpp` that allow to use the following function declaration:

```
1. std::string base64_decode(const std::string& input);
```

The `.h` file should contain only the non defining declaration of the function, while the definition should be in the `.cpp` file. Don't provide a `main()` function, because one is already defined in the system and will be linked to your code.

The function should take a sequence of Base64 encoded bytes as input and provide the decoded sequence as output. The Base64 Content-Transfer-Encoding specification is available in the Support Files section ("Base64 Specification").

If the input is empty, the output will be empty as well. The input sequence will always be valid, so no error checking is required. Proper handling of the final `=` characters is required.