

Console Application Documentation

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CSC450: Programming III

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Console Application Documentation

```
/*  
  
* Create a simple C++ console application using Eclipse IDE that will accomplish the  
following:
```

```
*  
  
*   First Name,  
  
*   Last Name,  
  
*   Street Address  
  
*   City  
  
*   Zip code  
  
*  
  
*   Prints the information for a fictional person.  
  
*/
```

```
#include <algorithm>
```

```
#include <iostream>
```

```
class Person
```

```
{
```

```
public:
```

```
    /* Explicit Initializer */
```

```
    Person(std::string aFirstName,
```

```
           std::string aLastName,
```

```

std::string aStreetAddress,
std::string aCity,
std::string aZipCode)
: firstName{std::move(aFirstName)}
, lastName{std::move(aLastName)}
, streetAddress{std::move(aStreetAddress)}
, city{std::move(aCity)}
, zipCode{std::move(aZipCode)}
{
/* Nothing left to initialize. */
}

/* Default Initializer */

Person(): Person{"FIRST_NAME", "LAST_NAME", "STREET_ADDRESS", "CITY",
"ZIPCODE"} { }

Person& setFirstName()
{
setData("First Name", firstName);
return *this;
};

Person& setLastName()

```

```
{  
    setData("Last Name", lastName);  
    return *this;  
};
```

Person& setStreetAddress()

```
{  
    setData("Street Address", streetAddress);  
    return *this;  
};
```

Person& setCity()

```
{  
    setData("City", city);  
    return *this;  
};
```

Person& setZipCode()

```
{  
    setData("Zip Code", zipCode);  
    if (isValidZipCode())  
    {  
        return *this;  
    }  
}
```

```

    }

    else

    {

        std::cerr << "Zip Code should be 5 digits i.e., 94513." << std::endl;

        return setZipCode();

    }

};

```

```

void display()

{

    /* Display the person in the same format you might address a letter.

    * Format was not specified in the assignment, but this is as good as anything else. */

    std::cout << std::endl

    << firstName << " " << lastName << std::endl

    << streetAddress << std::endl

    << city << " " << zipCode << std::endl;

};

```

private:

```

    bool

    isValidZipCode()

    {

        return zipCode.length() == 5 && std::all_of(zipCode.begin(), zipCode.end(), ::isdigit);
    }

```

```
};
```

```
void
```

```
setData(const std::string& prompt, std::string& to)
```

```
{
```

```
std::cout << prompt << ": ";
```

```
std::getline(std::cin, to);
```

```
};
```

```
std::string firstName;
```

```
std::string lastName;
```

```
std::string streetAddress;
```

```
std::string city;
```

```
std::string zipCode;
```

```
};
```

```
auto
```

```
main(int argc, char *argv[]) -> int
```

```
{
```

```
    Person person{};
```

```
        std::cout << "Please enter the following information for yourself, or someone you know:"  
<< std::endl;  
  
        person.setFirstName()  
        .setLastName()  
        .setStreetAddress()  
        .setCity()  
        .setZipCode()  
        .display();  
  
        return 0;  
    }
```

Figure 1*Console Output*

```

        std::cout << prompt << ": ";
        std::getline(std::cin, to);
    };

    std::string firstName;
    std::string lastName;
    std::string streetAddress;
    std::string city;
    std::string zipCode;
};

auto
main(int argc, char *argv[]) -> int
{
    Person person();

    std::cout << "Please enter the following information for yourself, or someone you know:" << std::endl;
    person.setFirstName()
           .setLastName()
           .setStreetAddress()
           .setCity()
           .setZipCode()
           .display();

    return 0;
}

```

2.8k CSC450/module_1/Person/main.cpp 121:0 Bot C++//l master

```

~/programs/Learning/College/CSC450/module_1/Person
$ g++ -o main main.cpp
~/programs/Learning/College/CSC450/module_1/Person
$ ./main
Please enter the following information for yourself, or someone you know:
First Name: cole
Last Name: bruns
Street Address: 123 Main Street
City: Rio Vista
Zip Code: 94513

cole bruns
123 Main Street
Rio Vista 94513
~/programs/Learning/College/CSC450/module_1/Person
$

```

-- INSERT --