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File I/O - Details

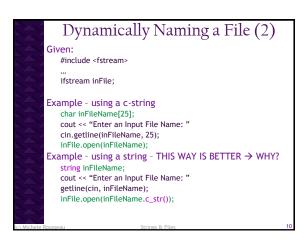
• Include the fstream headerfile
• #include <fstream>

• Declare the file stream variables
• ifstream fin; ← declares the input file stream
• ofstream fout; ← declares the output file stream

• Open the files
• fin.open("inFileName.txt"); ← opens the input file
• fout.open("outFileName.txt"); ← opens the output file
• fout.open("inFileName.txt"); ← opens the output file
• fout.open(); ← closes the input file
• fout.close(); ← closes the output file
```

```
#include <fstream>
int main()
  ifstream fin;
  ofstream fout;
   // opens the file named InputFile.txt as an input file
  fin.open("InputFile.txt");\\
   // opens the file named OutputFile.txt as an output file
   fout.open("OutputFile.txt");
   // reads a name in from inFile and puts the data in the variable name
  getline(fin,name);
   // outputs the variable payrate to outData
   fout << payRate << endl;
   // don't forget to close your files
   fin.close():
                                      NOTE: Output manipulators
   fout.close();
                                      can be used with files too
```

## Dynamically Naming a File To dynamically identify your input file (take the filename in as input) The string must be null terminated Data type string is not null terminated 2 options Declare a c-string char fileName[25]; Convert the string to a c-string (i.e. make it null terminated) with .c\_str() string fileName; fileName.c\_str()



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Create Your Input File First

• Go to File → New → File

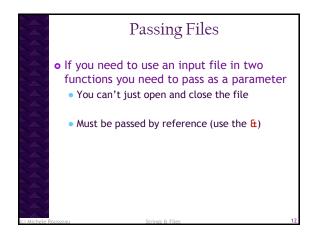
• Make sure the files are in your project folder

• Output files will auto generate

• Input files won't

• Eclipse doesn't need these files to exist

→ BUT if you want it to read input you need to identify it somewhere does need the input file
```



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Including code in another file

• Create a .cpp file

• Ensure it is contained in the same folder

• Include whatever preprocessor directives you need for the functions in that file to run
```

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