src/Loan.cpp

```cpp
1  // Title  : Loan.cpp
2  // Desc   : Implementation for Loan class
3  // Name   : An Tran
4
5  #include <iostream>
6      using std::cout;
7
8  #include <iomanip>
9      using std::setfill;
10     using std::setw;
11     using std::left;
12     using std::right;
13
14 #include <fstream>
15
16 #include "Loan.h"
17
18 // constructors
19 Loan::Loan() : Loan(0.0, 0.0, 0, ""){};
20 Loan::Loan(float principal, float interestRate, int loanLength, string loanType)
21     : principal(principal), interestRate(interestRate), loanLength(loanLength),
   loanType(loanType){
22     // setPrincipal(principal);
23     // setInterestRate(interestRate);
24     // setLoanLength(loanLength);
25     // setLoanType(loanType);
26 };
27
28 // getters
29 float Loan::getPrincipal(){
30     return principal;
31 };
32
33 float Loan::getInterestRate(){
34     return interestRate;
35 };
36
37 float Loan::getLoanLength(){
38     return loanLength;
39 };
40
41 string Loan::getLoanType(){
42     return loanType;
43 };
44
45 // setters
46 void Loan::setPrincipal(float newPrincipal){
47     principal = newPrincipal;
48 };
49
50 void Loan::setInterestRate(float newInterestRate){
51     interestRate = newInterestRate;
52 };
```

```cpp
53
54  void Loan::setLoanLength(int newLoanLength){
55      loanLength = newLoanLength;
56  };
57
58  void Loan::setLoanType(string newLoanType){
59      loanType = newLoanType;
60  };
61
62  //other
63  void Loan::displayLoan(){
64      double monthlyPayment = this->monthlyPayment();
65      cout << "Loan Overview" << '\n'
66          << std::setfill('=') << std::setw(32) << "" << std::setfill(' ') << '\n'
67          << left << setw(18) << "Loan Type:" << this->getLoanType() << '\n'
68          << left << setw(18) << "Principal:" << this->getPrincipal() << '\n'
69          << left << setw(18) << "Interest Rate:" << this->getInterestRate() << '%' <<
    '\n'
70          << left << setw(18) << "Length in Years:" << this->getLoanLength() << '\n'
71          << left << setw(18) << "Monthly Payment:" << monthlyPayment << '\n';
72  };
73
74  void Loan::saveLoan(){
75      std::fstream file;
76      file.open("data/loans.txt", std::ios::out);
77      file << getPrincipal() << " " << getInterestRate() << " " << getLoanLength();
78      file.close();
79  };
80
```