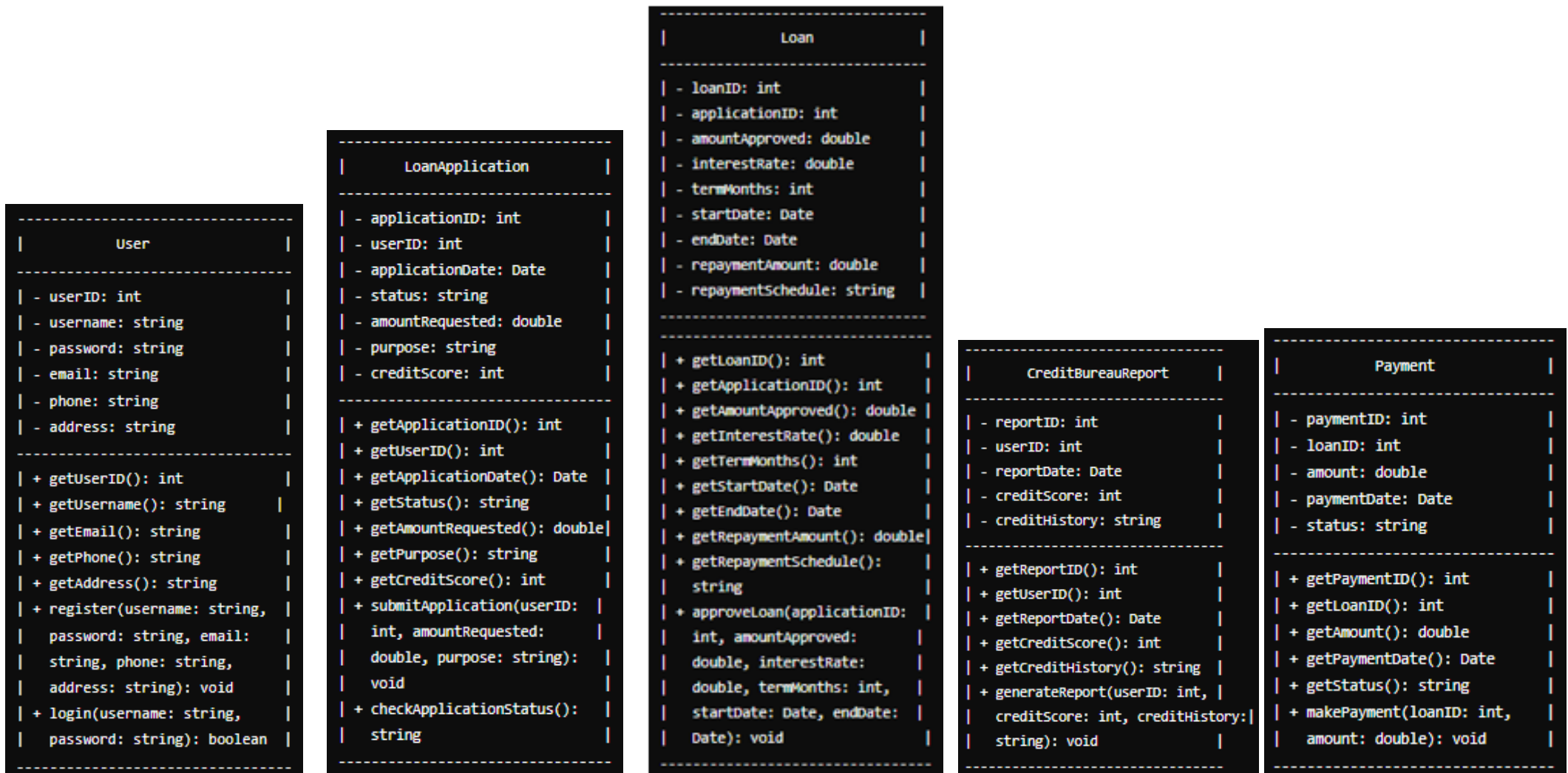


## UML Class Diagram:



## **Explanation:**

### **1. User Class:**

- Represents users who interact with the loan application system.
- Attributes: `userID`, `username`, `password`, `email`, `phone`, `address`.
- Methods: `register()` for user registration, `login()` for user authentication.

### **2. LoanApplication Class:**

- Represents the loan application made by users.
- Attributes: `applicationID`, `userID`, `applicationDate`, `status`, `amountRequested`, `purpose`, `creditScore`.
- Methods: `submitApplication()` to submit a new loan application, `checkApplicationStatus()` to check the status of an application.

### **3. Loan Class:**

- Represents a loan that is approved based on a loan application.
- Attributes: `loanID`, `applicationID`, `amountApproved`, `interestRate`, `termMonths`, `startDate`, `endDate`, `repaymentAmount`, `repaymentSchedule`.
- Methods: `approveLoan()` to approve a loan based on an application.

### **4. Payment Class:**

- Represents payments made towards loans.
- Attributes: `paymentID`, `loanID`, `amount`, `paymentDate`, `status`.
- Methods: `makePayment()` to make a payment towards a loan.

### **5. CreditBureauReport Class:**

- Represents credit bureau reports associated with users.
- Attributes: `reportID`, `userID`, `reportDate`, `creditScore`, `creditHistory`.
- Methods: `generateReport()` to generate a credit report for a user.

### **6. Document Class:**

- Represents documents uploaded by users.
- Attributes: `documentID`, `userID`, `documentType`, `filePath`, `uploadDate`.
- Methods: `uploadDocument()` to upload a document for a user.