Tp à Rendre :

Class Agence :

```java
1  package Exercice_1;
2  import java.time.LocalDate;

5
6  public class Agence implements IAgence{
7  Map<String , Compte>comptes = new HashMap<>();
8  Agence(){
9  Compte c1 = new Compte(123,"A123",LocalDate.now());
10 comptes.put(c1.getNumero(), c1) ;
11 Compte c2 = new Compte(124,"A124",LocalDate.now());
12 comptes.put(c2.getNumero(), c2) ;
13 Compte c3 = new Compte(125,"A124",LocalDate.now());
14 comptes.put(c3.getNumero(), c3) ;
15 Compte c4 = new Compte(126,"A125",LocalDate.now());
16 comptes.put(c4.getNumero(), c4);
17 }
18 @Override
19 public void addCompte(Compte c) {
20     // TODO Auto-generated method stub
21     comptes.put(c.getNumero(), c);
22 }
23 @Override
24 public Compte getCompte(String numero) {
25     // TODO Auto-generated method stub
26     return comptes.get(numero);
27 }
28 }
29
```

Class Client :

```java
1  package Exercice_1;
2
3  public class Client {
4  private long id ;
5  private String cin ;
6  private String nom ;
7  private String prenom ;
8  public Client(long id ,String cin ,String nom ,String prenom) {
9      this.id = id ;
10     this.cin = cin ;
11     this.nom = nom ;
12     this.prenom = prenom ;
13 }
14 }
15
```

Class Compte :

```java
1  package Exercice_1;
2
3  import java.time.LocalDate;
6
7  public class Compte {
8  private long id ;
9  private String numero ;
10 private LocalDate dateCreation;
11 List<Operation>operations = new ArrayList<>();
12 public List<Operation> getOperations() {
13     return operations;
14 }
15 public void setOperations(List<Operation> operations) {
16     this.operations = operations;
17 }
18 public Compte(long id ,String numero ,LocalDate dateCreation) {
19     this.id = id ;
20     this.numero = numero ;
21     this.dateCreation = dateCreation ;
22 }
23 public String getNumero() {
24     return numero;
25 }
26 public void setNumero(String numero) {
27     this.numero = numero;
28 }
29 public long getId() {
30     return id;
31 }
32 public void setId(long id) {
33     this.id = id;
34 }
35 public LocalDate getDateCreation() {
36     return dateCreation;
37 }
38 public void setDateCreation(LocalDate dateCreation) {
39     this.dateCreation = dateCreation;
40 }
41 }
42
```

Class Operation :

```java
1  package Exercice_1;
2
3  import java.time.LocalDate;
4
5  public class Operation {
6  private long id ;
7  private LocalDate dateOperation ;
8  private double montant ;
9  TypeOperation type ;
10
11 public Operation(long id ,LocalDate dateOperation,double montant ,TypeOperation type) {
12     this.id = id ;
13     this.dateOperation = dateOperation ;
14     this.montant = montant ;
15 }
16
17 public LocalDate getDateOperation() {
18     return dateOperation;
19 }
20
21 public void setDateOperation(LocalDate dateOperation) {
22     this.dateOperation = dateOperation;
23 }
24
25 }
26
```

Class TypeOperation :

```java
1  package Exercice_1;
2
3  public enum TypeOperation {
4  VERS,
5  RETR ,
6  VIRM
7  }
8
```

Class IAgence :

```java
1  package Exercice_1;
2
3  public interface IAgence {
4  void addCompte(Compte c) ;
5  Compte getCompte(String numero);
6  }
7
```

Class ICompteManagement :

```java
1   package Exercice_1;
2
3   import java.time.LocalDate;
5
6   public interface ICompteManagement {
7   void addOperatin(Compte c,Operation op);
8   List<Operation>getOperation(Compte c ,LocalDate d1 ,LocalDate d2) ;
9   void PrintDetail(Compte c);
10  }
11
```

Class CompteManagemts :

```java
1   package Exercice_1;
2   import java.time.LocalDate;
5
6   public class CompteManagements implements ICompteManagement {
7   Agence agence ;
8   public CompteManagements(Agence agence){
9   this.agence = agence ;
10  }
11      @Override
12      public void addOperatin(Compte c, Operation op) {
13          // TODO Auto-generated method stub
14          c.getOperations().add(op);
15      }
16
17      @Override
18      public List<Operation> getOperation(Compte c, LocalDate d1, LocalDate d2) {
19          // TODO Auto-generated method stub
20          List<Operation>result = new ArrayList<>();
21          for (Operation op:c.getOperations()) {
22              LocalDate date = op.getDateOperation() ;
23              if((date.isEqual(d1)||date.isAfter(d1))&&(date.isEqual(d2) || date.isBefore(d2))){
24                  result.add(op);
25              }
26          }
27          return result;
28      }
29      @Override
30      public void PrintDetail(Compte c) {
31          // TODO Auto-generated method stub
32          System.out.println("l'Id du Compte :"+c.getId());
33          System.out.println("le numero du Compte"+c.getNumero());
34          System.out.println("la date de création :"+c.getDateCreation());
35          List<Operation> operations = c.getOperations();
36          int start = Math.max(0, operations.size() - 10);
37          for (int i = start; i < operations.size(); i++) {
38              System.out.println(operations.get(i));
39          }
40      }
41
42  }
```

Class Main :

```java
1   package Exercice_1;
2
3   import java.time.LocalDate;
5
6   public class Programm {
7
8       public static void main(String[] args) {
9           // TODO Auto-generated method stub
10  Agence a = new Agence() ;
11  CompteManagements compteM = new CompteManagements(a);
12  Compte compte = a.getCompte("A123");
13  compteM.addOperatin(compte, new Operation(1L ,LocalDate.of(2025, 5, 10),-150.0,TypeOperation.VERS));
14  compteM.addOperatin(compte, new Operation(2L ,LocalDate.of(2025, 5, 12),200.0,TypeOperation.VIRM));
15  List<Operation>operation = compteM.getOperation(compte, LocalDate.of(2025, 5, 1),LocalDate.of(2025, 5, 20));
16  for(Operation op : operation) {
17      System.out.println(op);
18  }
19  compteM.PrintDetail(compte);
20      }
21
22  }
23
```