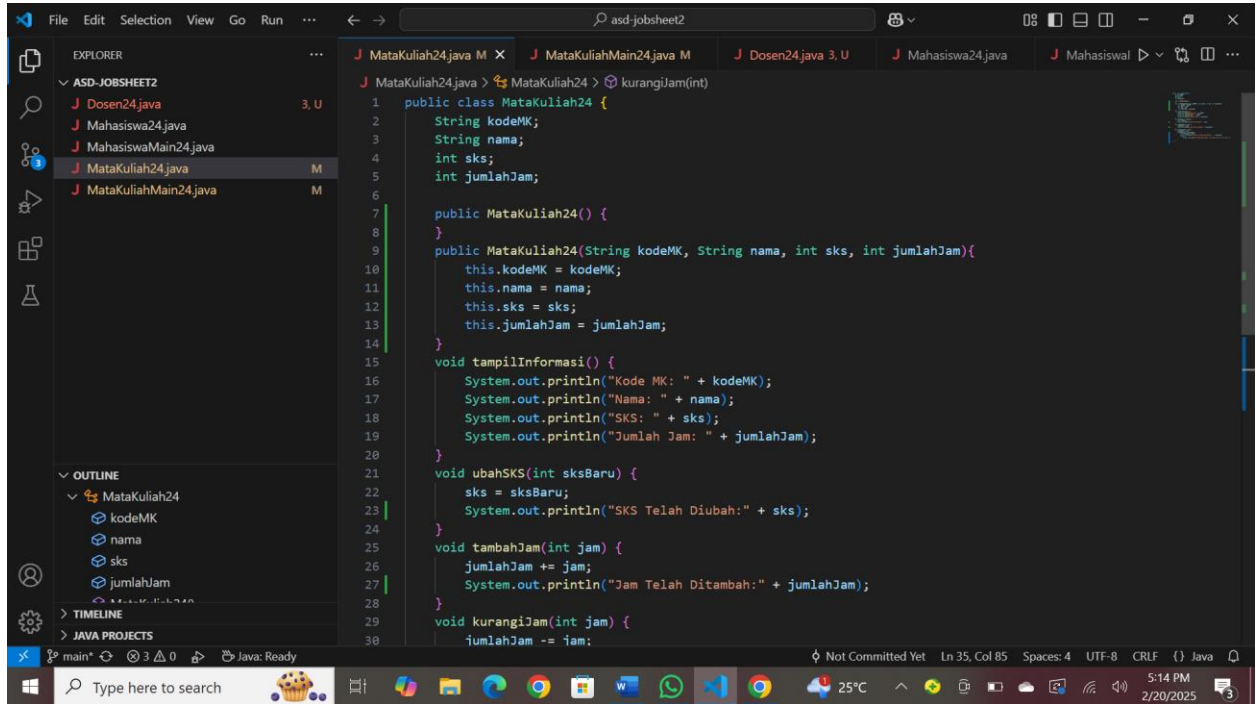


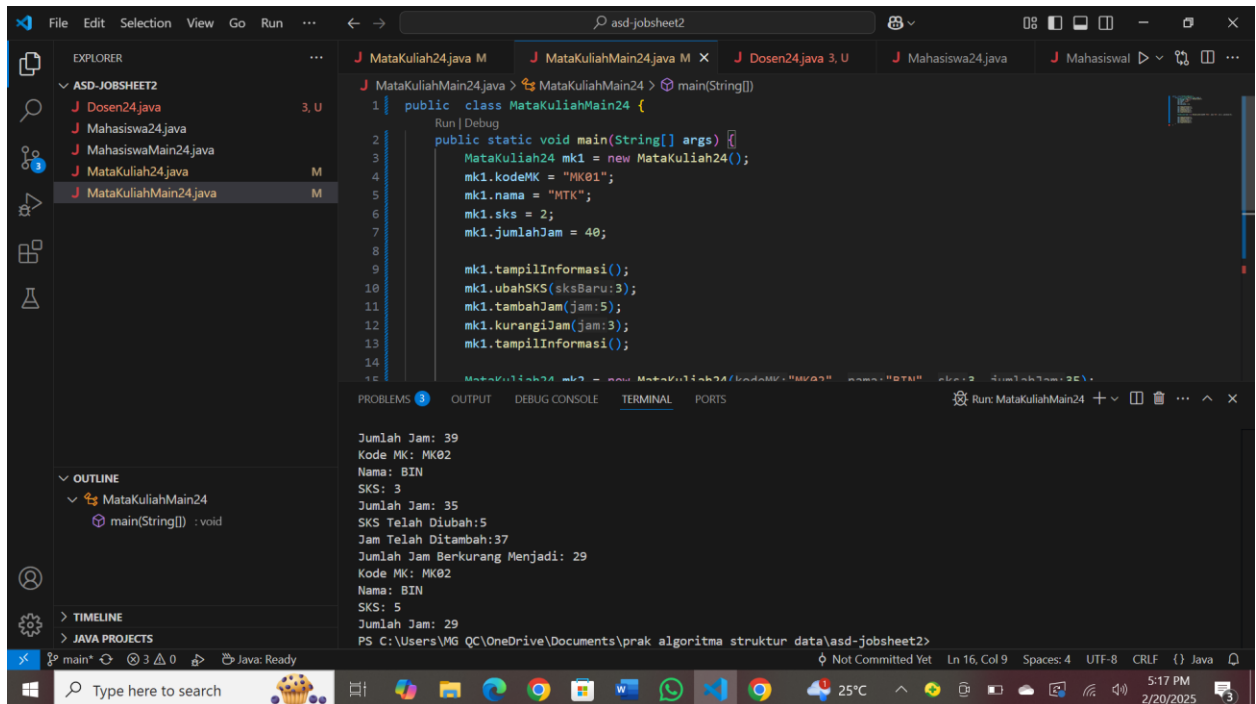
Latihan Praktikum

1. Implementasi class MataKuliah berdasarkan class diagram



```
1 public class MataKuliah24 {
2     String kodeMK;
3     String nama;
4     int sks;
5     int jumlahJam;
6
7     public MataKuliah24() {
8     }
9     public MataKuliah24(String kodeMK, String nama, int sks, int jumlahJam) {
10         this.kodeMK = kodeMK;
11         this.nama = nama;
12         this.sks = sks;
13         this.jumlahJam = jumlahJam;
14     }
15     void tampilInformasi() {
16         System.out.println("Kode MK: " + kodeMK);
17         System.out.println("Nama: " + nama);
18         System.out.println("SKS: " + sks);
19         System.out.println("Jumlah Jam: " + jumlahJam);
20     }
21     void ubahSKS(int sksBaru) {
22         sks = sksBaru;
23         System.out.println("SKS Telah Diubah: " + sks);
24     }
25     void tambahJam(int jam) {
26         jumlahJam += jam;
27         System.out.println("Jam Telah Ditambah: " + jumlahJam);
28     }
29     void kurangiJam(int jam) {
30         jumlahJam -= jam;
```

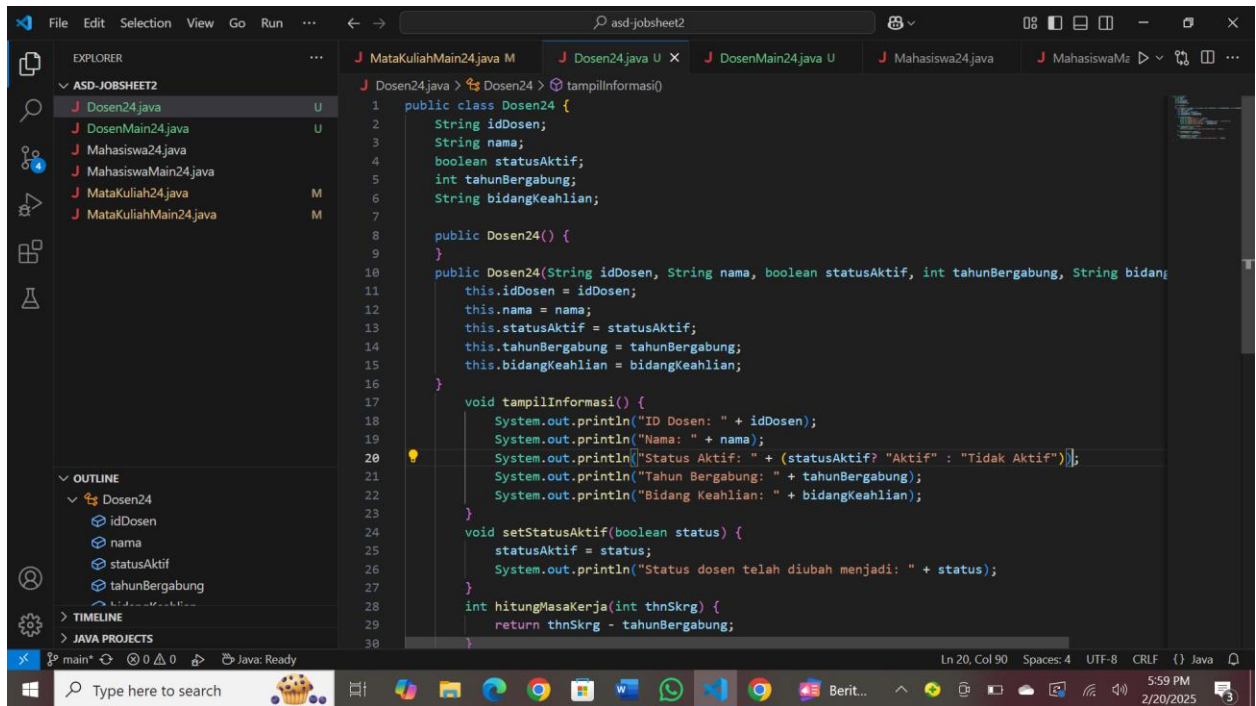
Implementasi class MataKuliahMain berdasarkan class diagram



```
1 public class MataKuliahMain24 {
2     public static void main(String[] args) {
3         MataKuliah24 mk1 = new MataKuliah24();
4         mk1.kodeMK = "MK01";
5         mk1.nama = "MTK";
6         mk1.sks = 2;
7         mk1.jumlahJam = 40;
8
9         mk1.tampilInformasi();
10        mk1.ubahSKS(sksBaru:3);
11        mk1.tambahJam(jam:5);
12        mk1.kurangiJam(jam:3);
13        mk1.tampilInformasi();
14    }
15 }
```

Jumlah Jam: 39
Kode MK: MK02
Nama: BIN
SKS: 3
Jumlah Jam: 35
SKS Telah Diubah: 5
Jam Telah Ditambah: 37
Jumlah Jam Berkurang Menjadi: 29
Kode MK: MK02
Nama: BIN
SKS: 5
Jumlah Jam: 29

2. Implementasi class Dosen berdasarkan class diagram

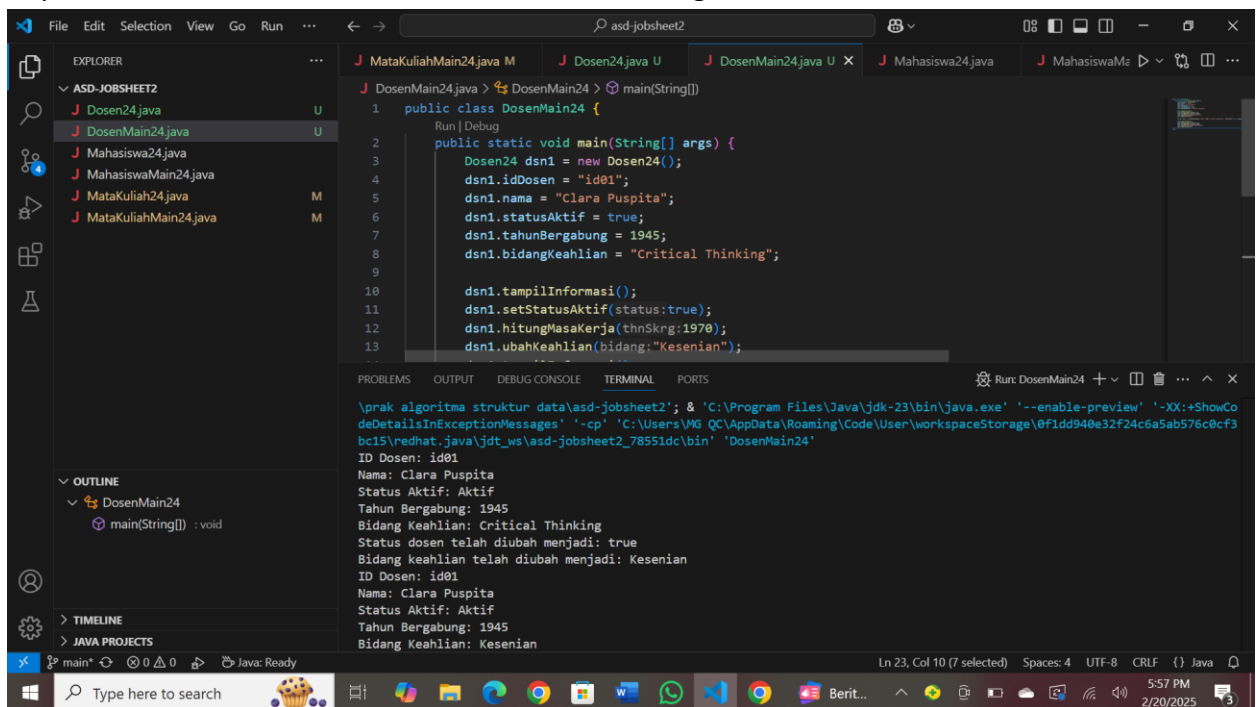


The screenshot shows an IDE with the following components:

- EXPLORER:** Shows the project structure for 'ASD-JOBSHEET2'. Files include 'Dosen24.java', 'DosenMain24.java', 'Mahasiswa24.java', 'MahasiswaMain24.java', 'MataKuliah24.java', and 'MataKuliahMain24.java'.
- OUTLINE:** Shows the structure of the 'Dosen24' class with attributes: 'idDosen', 'nama', 'statusAktif', 'tahunBergabung', and 'bidangKeahlian'.
- Code Editor:** Contains the implementation of the 'Dosen24' class.

```
1 public class Dosen24 {
2     String idDosen;
3     String nama;
4     boolean statusAktif;
5     int tahunBergabung;
6     String bidangKeahlian;
7
8     public Dosen24() {
9     }
10    public Dosen24(String idDosen, String nama, boolean statusAktif, int tahunBergabung, String bidangKeahlian) {
11        this.idDosen = idDosen;
12        this.nama = nama;
13        this.statusAktif = statusAktif;
14        this.tahunBergabung = tahunBergabung;
15        this.bidangKeahlian = bidangKeahlian;
16    }
17
18    void tampilInformasi() {
19        System.out.println("ID Dosen: " + idDosen);
20        System.out.println("Nama: " + nama);
21        System.out.println("Status Aktif: " + (statusAktif ? "Aktif" : "Tidak Aktif"));
22        System.out.println("Tahun Bergabung: " + tahunBergabung);
23        System.out.println("Bidang Keahlian: " + bidangKeahlian);
24    }
25
26    void setStatusAktif(boolean status) {
27        statusAktif = status;
28        System.out.println("Status dosen telah diubah menjadi: " + status);
29    }
30
31    int hitungMasaKerja(int thnSkrng) {
32        return thnSkrng - tahunBergabung;
33    }
34 }
```

Implementasi class DosenMain berdasarkan class diagram



The screenshot shows an IDE with the following components:

- EXPLORER:** Shows the project structure for 'ASD-JOBSHEET2'. Files include 'Dosen24.java', 'DosenMain24.java', 'Mahasiswa24.java', 'MahasiswaMain24.java', 'MataKuliah24.java', and 'MataKuliahMain24.java'.
- OUTLINE:** Shows the structure of the 'DosenMain24' class with a method: 'main(String[]) : void'.
- Code Editor:** Contains the implementation of the 'DosenMain24' class.

```
1 public class DosenMain24 {
2     public static void main(String[] args) {
3         Dosen24 dsn1 = new Dosen24();
4         dsn1.idDosen = "id01";
5         dsn1.nama = "Clara Puspita";
6         dsn1.statusAktif = true;
7         dsn1.tahunBergabung = 1945;
8         dsn1.bidangKeahlian = "Critical Thinking";
9
10        dsn1.tampilInformasi();
11        dsn1.setStatusAktif(status:true);
12        dsn1.hitungMasaKerja(thnSkrng:1970);
13        dsn1.ubahKeahlian(bidang:"Kesenian");
14    }
15 }
```
- TERMINAL:** Shows the output of the program execution.

```
\prak algoritma struktur data\asd-jobsheet2; & 'C:\Program Files\Java\jdk-23\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\WG\QC\AppData\Roaming\Code\User\workspaceStorage\0f1dd940e32f24c6a5ab576c0cf3bc15\redhat.java\jdt_ws\asd-jobsheet2_78551dc\bin' 'DosenMain24'
ID Dosen: id01
Nama: Clara Puspita
Status Aktif: Aktif
Tahun Bergabung: 1945
Bidang Keahlian: Critical Thinking
Status dosen telah diubah menjadi: true
Bidang keahlian telah diubah menjadi: Kesenian
ID Dosen: id01
Nama: Clara Puspita
Status Aktif: Aktif
Tahun Bergabung: 1945
Bidang Keahlian: Kesenian
```