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/** This class method are called from Command Processor when put
methods are executed */

import java.io.File;
import java.io.FileWriter;
import java.io.IOException;

public class AddDataCommand extends CommandAdaptor {
    private StringBuilder value = new StringBuilder();
    private File file = new File("commands.txt");
    private FileWriter fileWriter = null;

    public AddDataCommand(IDatabase database, String key, Object
data) {
        super(database, key, data);
    }

    /** saving the data to commands.text file */
    @Override
    public boolean execute() {
        value.append("add@").append(this.key +
"@").append(this.data + "@").append(getInstance());
        try {
            fileWriter = new FileWriter(file, true);
            fileWriter.write(value.toString());
            fileWriter.write("\n");
            fileWriter.flush();
            fileWriter.close();
        } catch (IOException e) {
            e.printStackTrace();
        }
        value.setLength(0);
        this.database.data().put(key, data);
        return true;
    }

    /** saving commands in undo operations for database recover
method */
    @Override
    public boolean undo() {
        value.append("delete@").append(this.key +
"@").append(this.data + "@").append(getInstance());
        try {
            fileWriter = new FileWriter(file, true);
            fileWriter.write(value.toString());
            fileWriter.write("\n");
            fileWriter.flush();
            fileWriter.close();
        } catch (IOException e) {
            e.printStackTrace();
        }
    }
}

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        value.setLength(0);
        return (this.database.data().remove(key) != null);
    }

    @Override
    public boolean canRedo() {
        return false;
    }

    @Override
    public boolean canUndo() {
        return true;
    }

    @Override
    public String getInstance() {
        if (this.data instanceof Integer)
            return "Integer";
        else if (this.data instanceof Double)
            return "Double";
        else if (this.data instanceof String)
            return "String";
        else if (this.data instanceof ArrayFormat)
            return "Array";
        else
            return "Object";
    }
}

```