

PC Part Picker

Functionality:

To create a Console application for PC Part picker to build custom personal computers , provide compatible parts for the ease of selecting the desired build.

Requirement:

Software : Eclipse Java ,JDBC,

Database: MySQL

Analysis:

Different compatible modules have been analysed and schema have been created in a modular fashion to provide extensible flexibility.

Implementation:

1. Database:

vendor_table: It has details about the vendor available in application. Attributes include ID(primary key) and vendorName.

cpu: It has details about the cpu product. Attributes include PID(primary key), MODEL, DETAILS, RATE, QTY, GC(has details whether processor has in-built graphic card or not), GID(Foreign Key, reference table gen_type), schemaID(Foreign key reference table schema_details).

gen_type:It has details about processor generation. Attributes include GID(primary key),gen/series, cid(Foreign Key reference table vendor_table).

compatible_board:It has details about compatibility between motherboard and processor. Attributes include compatibleID(primary key),GID(Foreign key reference table gen_type),seriesID(Foreign key reference table motherboard_series).

motherboard_series: It has details about processor generation and respective motherboard series. Attributes include SeriesID(primary key) and Series.

mother_board: It has details about motherboard. Attributes include PID(primary key),BRAND(Foreign key reference vendor_table),MODEL,SeriesID(Foreign key reference motherboard_series), RATE, QTY, schemaID(Foreign key reference schema_details).

graphic_card: It has details about Graphic cards. Attributes include PID(primary key),BRAND(Foreign key reference vendor_table),MODEL,GPU_CHIP, RATE, QTY, schemaID(Foreign key reference schema_details).

memory_module: It has details about memory_module. Attributes include PID(primary key),BRAND(Foreign key reference vendor_table),MODEL, RATE, QTY, schemaID(Foreign key reference schema_details).

power_supply: It has details about power_supply. Attributes include PID(primary key),BRAND(Foreign key reference vendor_table),MODEL,DETAILS, RATE, QTY, schemaID(Foreign key reference schema_details).

ups: It has details about ups. Attributes include PID(primary key),BRAND(Foreign key reference vendor_table),MODEL, RATE, QTY, schemaID(Foreign key reference schema_details).

cabinets: It has details about cabinets. Attributes include PID(primary key),BRAND(Foreign key reference vendor_table),MODEL, RATE, QTY, schemaID(Foreign key reference schema_details).

storage: It has details about storage. Attributes include PID(primary key),BRAND(Foreign key reference vendor_table),MODEL, CAPACITY,RATE, QTY, schemaID(Foreign key reference schema_details).

storage_type: It has details about storage and its storage type. Attributes include SID(primary key),TYPE.

user: It has details about the user. Attributes include userID(primary key), FirstName, LastName, Email, psw, phone, Address, State, City, Zip, Country, EmailVerification, PhoneVerification.

order_details: It has details about the individual product order. Attributes include OrderDetailsID(primary key),OrderID(Foreign Key reference table order),PID,RATE,QTY.

order: It has details about the complete order. Attributes include OrderID(primary key),userID(Foreign Key),TOTAL.

schema_details: It has details about the schemas present in DB. Attributes include ID(primary key),schemaName.

2. Application:

Partpicker.java , handles the user's interaction with the system. All crucial functions such as Login, signup , selecting desired compatible parts, editing and finalizing the order updating the database for the build are done each separately by the respective methods

Processor.java, GraphicCard.java, MotherBoard.java, MemoryModule.java, PowerSupply.java, Cabinets.java, Ups.java, Storage.java these classes holds the properties and the functions of their respective products.

order.java, holds the properties of the order details.

User.java, holds the properties of the user and functions like generate userID for individual users.

ShoppingCart.java, holds user's purchased products through their respective object.

Configuration.java, setConnection.java these have information about Database Connection.

Reference:

<https://pcpartpicker.com/>