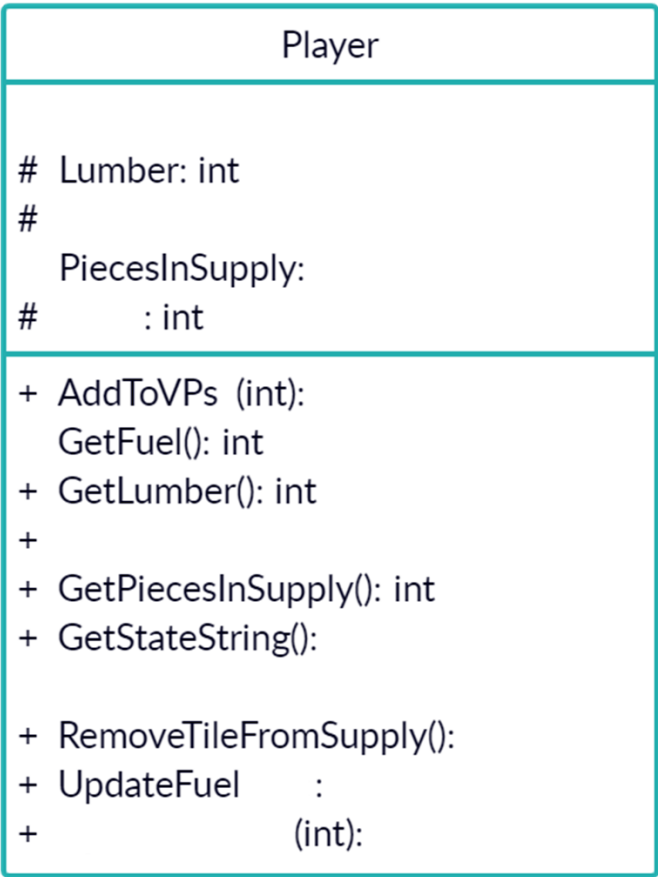# HEX BARON – Class Diagram Tasks

Task 1 (2 marks)

A partially-complete UML class diagram for the `Player` class is shown below.

Fill in the missing details.

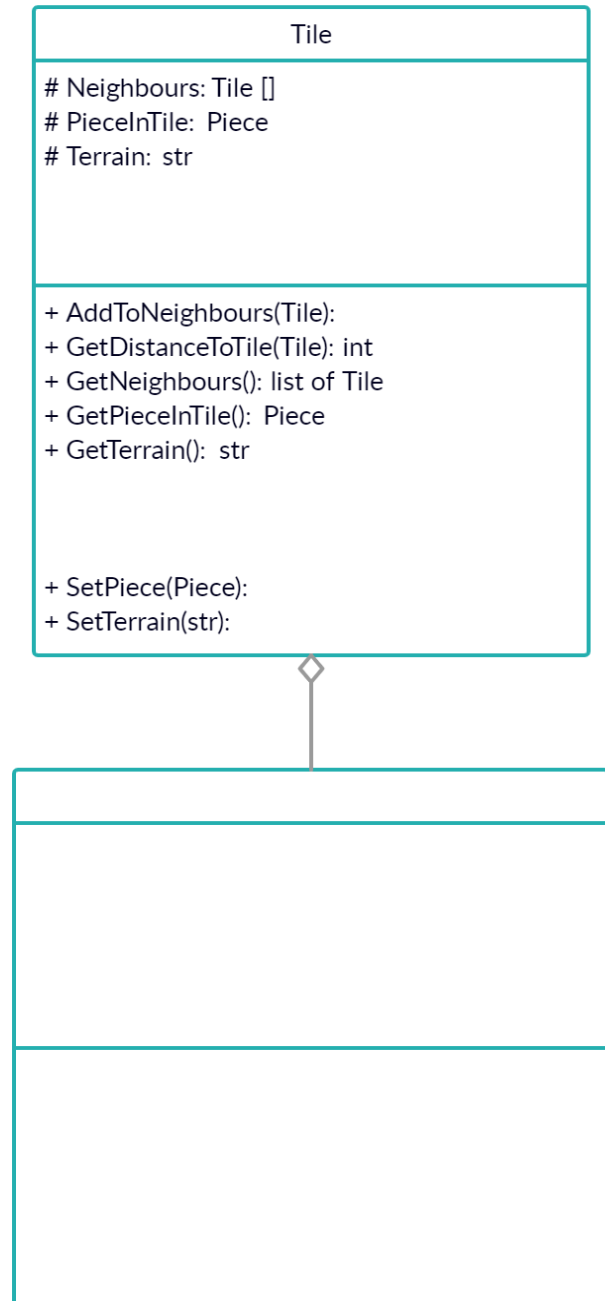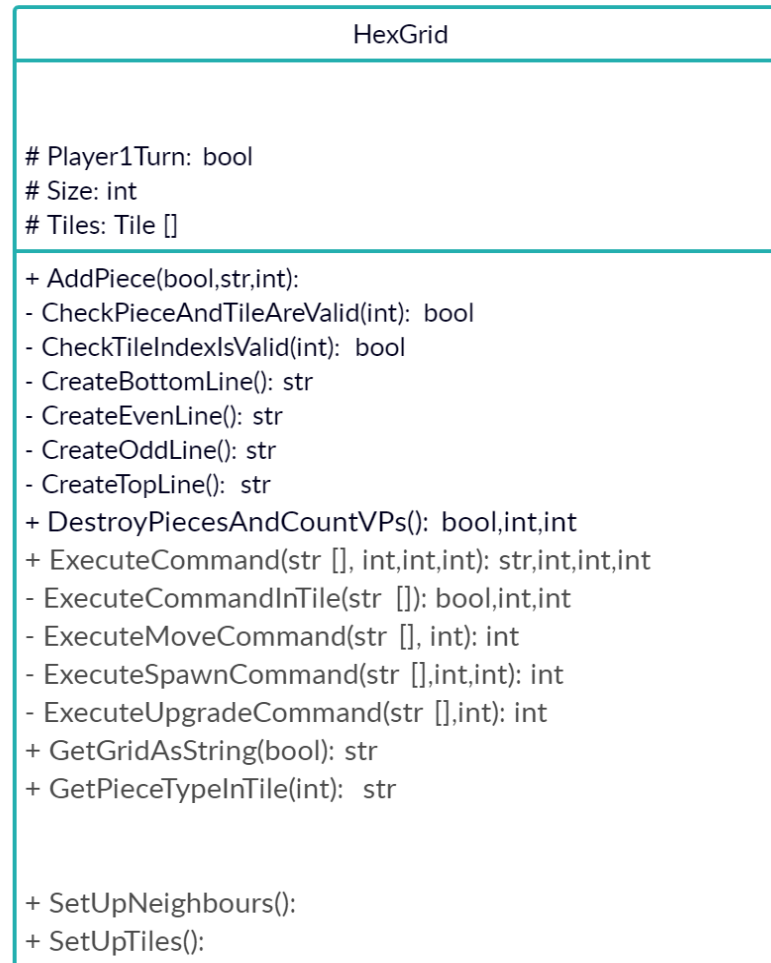| Player |
| --- |
| # Lumber: int

   PiecesInSupply:
: int |
| + AddToVPs (int):
   GetFuel(): int
+ GetLumber(): int
+
+ GetPiecesInSupply(): int
+ GetStateString():

+ RemoveTileFromSupply():
+ UpdateFuel   :
+   (int): |

Task 2 (5 marks)

A partially-complete UML class diagram is shown.

Fill in the missing details, including any relationships between the classes shown.

HexGrid

Player1Turn: bool
Size: int
Tiles: Tile []

+ AddPiece(bool,str,int):
- CheckPieceAndTileAreValid(int): bool
- CheckTileIndexIsValid(int): bool
- CreateBottomLine(): str
- CreateEvenLine(): str
- CreateOddLine(): str
- CreateTopLine(): str
+ DestroyPiecesAndCountVPs(): bool,int,int
+ ExecuteCommand(str [], int,int,int): str,int,int,int
- ExecuteCommandInTile(str []): bool,int,int
- ExecuteMoveCommand(str [], int): int
- ExecuteSpawnCommand(str [],int,int): int
- ExecuteUpgradeCommand(str [],int): int
+ GetGridAsString(bool): str
+ GetPieceTypeInTile(int): str

+ SetUpNeighbours():
+ SetUpTiles():

Tile

Neighbours: Tile []
PieceInTile: Piece
Terrain: str

+ AddToNeighbours(Tile):
+ GetDistanceToTile(Tile): int
+ GetNeighbours(): list of Tile
+ GetPieceInTile(): Piece
+ GetTerrain(): str

+ SetPiece(Piece):
+ SetTerrain(str):

Task 3

(4 marks)

There are two pieces of information missing from the UML class diagram below.
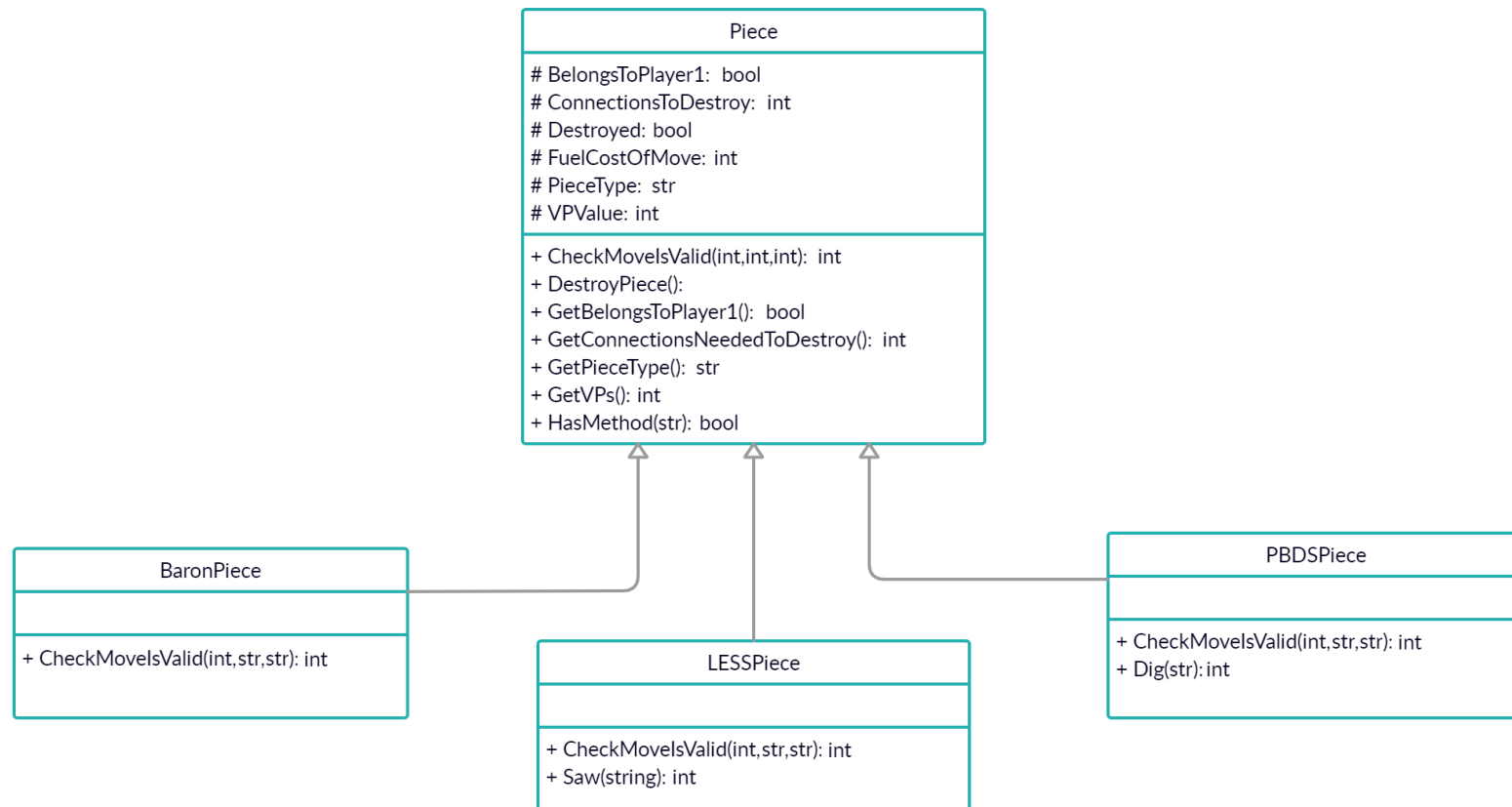
Explain what are they and why are they normally omitted?

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