TO CONTROLLER

«singleton» Game
- -MAXPLAYERS: int
- -LEADERPATH: String
- -board: Board
- -instance: Game
- -players:ArrayList<Player>
- -currentPlayer: Player
- -currentPlayerId: int
- -leaderCards: ArrayList<LeaderCard>

- +Game()
- +getInstance(): Game
- +getBoard(): Board
- +addNewPlayer(Player)
- +getPlayerByNickname(String): Player
- +setCurrentPlayer(Player)
- +getPlayersNumber(): int
- +getCurrentPlayer(): Player
- +getPlayerByIndex(int): Player
- +isNicknameTaken(String): boolean
- +nextTurn()
- +getCurrentPlayerID():int

Player
- -nickname: String
- -victoryPoints: int
- -LEADER_CARDS_OWNED: int
- -statusPlayer: StatusPlayer

- +calculateAndSetVictoryPoints()
- +getVictoryPoints(): int
- +getNickname(): String
- +setNickname(String)
- +getStatusPlayer(): StatusPlayer

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«abstract» LeaderCard
- -requiredResources: Map<Resource,Integer>
- -requiredCards: Map<CardType,Integer>
- -requiredCardsWithLevel: Map<CardType,Integer>
- -victoryPoints: int
- -isDiscarded: boolean
- -isActivated: boolean

- +getRequiredResources(): Map<Resource,Integer>
- +getRequiredCards(): Map<CardType,Integer>
- +getRequiredCardsWithLevel(): Map<CardType,Integer>
- +getVictoryPoints(): int
- +discard()
- +activate()
- +getIsDiscarded(): boolean
- +getIsActivated(): boolean

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Controller
- -game: Game

- +activateProduction()
- +buyDevelopmentCard(int, int)
- +useMarket(char,int)
- +activateLeaderCard(int)
- +discardLeaderCard(int)
- +editWarehouse()
- -insertBoughtResources(List<Resource>)
- -fromMarblesToResources(List<MarbleColor>)
- -incrementFaithTrackPosition(Player)
- -handlerDiscountLeader(Map<Resource,Integ...
- -handlerMarbleLeader():Resource

Note:
0=start
3=punti 1
5-8 = primo rapporto vaticano (8) 2
6=punti 2
9=punti 4
12-16=secondo rapporto vaticano(
12=punti 6

«Enumeration» LeaderCardType
- DISCOUNT
- PRODUCTION
- WHITEMARBLE
- SLOTS

«Enumeration» PopeFavorTileStatus
- INACTIVE
- ACTIVE
- DISCARDED

Board
- -blackCrossPosition: int
- -market:Market
- -soloActions: ArrayLsit<SoloAction>
- -developmentCardBoard:DevelopmentCardBoard

- +Board()
- +getBlackCrossPosition():int
- +incrementBlackCrossPosition()
- +pickSoloAction(): SoloAction
- +shuffleSoloActionPile()
- +getMarket(): Market
- +getDevelopmentCardBoard(): DevelopmentCardBoard

StatusPlayer
- -faithTrackPosition: int
- -playerWarehouse: PlayerWarehouse
- -strongboxResources: Map<Resource,Integer>
- -popeFavorTiles: SameTypeTriple<PopeFavorTileStatus>
- -personalCardBoard:PersonalCardBoard
- -leaderCards:List<LeaderCard>

- +getFaithTrackPosition(): int
- +getPopeFavorTile(int): PopeFavorTileStatus
- +incrementFaithTrackPosition()
- +vaticanReportHandler(reportID: int)
- +removeStrongboxResources(Resource)
- +getStrongboxResources(): Map<Resource,Integer>
- +addStrongboxResources(Map<Resource,Integer>)
- +getPlayerWarehouse(): PlayerWarehouse
- +getPersonalCardBoard(): PersonalCardBoard
- +getPlayerLeaderCards(): List<LeaderCard>
- +getLeaderCard(int):LeaderCard
- +getAllResources():Map<Resource,Integer>
- +removeResources(Map<Resource,Integer>)
- +getLeaderResource(LeaderCardType,int):Resource

LeaderCardDiscount
- -discountedResource: Resource

- +getDiscountedResource(): Resource

LeaderCardSlots
- -slotTypeResource: Resource
- -fullSlotsNumber: int

- +getSlotType(): Resource
- +getFullSlotsNumber(): int
- +setSlots(n: int)

LeaderCardWhiteMarble
- -resourceChangeWithWhite: Resource

- +getResourceChangeWithWhite(): Resource

LeaderCardProduction
- -requestedResource: Resource

- +getRequestedResource(): Resource

SoloAction
- -type: SoloActionType
- -discardedCardsType: CardType

- +getType(): SoloActionType
- +getDiscardedCardsType: CardType

0..7

Market
- -marbles: MarbleColor[4][3]
- -slideMarble: MarbleColor

- +initMarket()
- +getColor(row: int,column: int): MarbleColor
- +getSlideMarble(): MarbleColor
- +selectColumn(column:int):List<MarbleColor>
- +selectRow(row:int):List<MarbleColor>

PersonalCardBoard
- -nmberOfCards:int
- -ownedCards: List<DevelopmentCard>

- +getNumberOfCards():int
- +canBuyCardOfLevel(int)
- +getCard(int,int): DevelopmentCard
- +getUpperCard(int):DevelopmentCard
- +addCard(DevelopmentCard,int)
- +isCardPileEmpty(int):boolean
- +getReqResProduction(List<Integer>):Map<Resource,Integer>
- +getProductionResources(List<Integer>):Map<Resource,Integer>
- +getProductionFP(List<Integer>):int

DevelopmentCard
- -id: int
- -type: CardType
- -level: int
- -cost: Map<Resource,Integer>
- -victoryPoints: int
- -requiredResources: Map<Resource,Integer>
- -producedResources: Map<Resource,Integer>
- -producedFaithPoints:int

- +getId(): int
- +getType(): CardType
- +getLevel(): int
- +getCost(): Map<Resource,Integer>
- +getVictoryPoints():int
- +getRequiredResources(): Map<Resource,Integer>
- +getProducedResources(): Map<Resource,Integer>
- +getProducedFaithPoints(): int
- +isBuyable(Map<Resource,Integer>):boolean

0..7

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«Enumeration» CardType
- GREEN
- BLUE
- YELLOW
- PURPLE

«Enumeration» SoloActionType
- MOVETWO
- MOVEONEANDSHUFFLE
- DISCARDTWOCARDS

«Enumeration» MarbleColor
- WHITE
- BLUE
- GREY
- YELLOW
- PURPLE
- RED

PlayerWarehouse
- -upperRow: Resource
- -middleRow: SameTypePair<Resource>
- -lowerRow: SameTypeTriple<Resource>

- +getResource(int, int): Resource
- +getUpperRowResource(): Resource
- +getMiddleRowResource(): Pair<Resource,Resource>
- +getLowerRowResource(): Triple<Resource,Resource,Resource>
- +getAllResources():Map<Resource,Integer>
- +insertResource(Resource,int,int)
- +removeResource(int, int)

DevelopmentCardBoard
- -MAXROWS: int
- -MAXCOLUMNS: int
- -cardBoard[3][4]:List<DevelopmentCard>

- +getCard(i: int, j: int):DevelopmentCard
- +removeCard(i:int, j: int)
- +isCardPileEmpty(i: int, j: int): boolean

«Enumeration» Resource
- COIN
- STONE
- SERVANT
- SHIELD

- +addOneResource(Map<Resource,Integer>, Resource):Map<Resource,Integer>
- +sumResourcesMap(Map<Resource,Integer>,Map<Resource,Integer>):Map<Resource,Integer>
- +enoughResources(Map<Resource,Integer>,Map<Resource,Integer>):boolean