# CS 5004 Final Project - Full App UML v0.3

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## <<Interface>> U10TeamView

TEXT_INPUT_WIDTH: int
TEAM_LIST_HEADER: String[ ][ ]
STARTING_LINEUP_HEADER: String[ ][ ]
PANEL_TITLE_FONT: Font
CONTENT_TITLE_FONT: Font
SECTION_BORDER: LineBorder

+ addFeatures(U10TeamFeatures): void
+ displayTeamSize(int): void
+ displayTeamStatus(String): void
+ displayStartingLineupStatus(String): void
+ clearNewPlayerInput(): void
+ displayStartingLineupList(String[][]): void
+ displayTeamList(String[][]): void
+ displayAddPlayerWarnings(String): void
+ displayAddedNotice(): void
+ displayTeammanagementWarnings(String): void
+ displayTeamManagementNotice(String): void

## <<Interface>> U10TeamFeatures

+ initializeProgram(): void
+ addPlayer(String, String, int, int, int, Position, int): void
+ updateTeamStatus(boolean): void
+ updateStartingLineupStatus(boolean): void
+ removePlayer(int): void
+ createTeam():void
+ formStartingLineup():void
+ updateTeamList(): void
+ updateTeamSize(): void
+ updateStartingLinupList(): void
+ updateAddPlayerWarnings(String): void
+ updateTeamManagementWarnings(String): void
+ exitApp(): void

## <<Interface>> U10TeamModel

+ addPlayer(String, String, int, int, int, Position, int): void
+ removePlayer(int): void
+ getSize(): int
+ createTeam(): void
+ getTeam(): String[][]
+ formStartingLineup(): void
+ getStartingLineup(): String[][]

## <<Interface>> Player

+ getName(): String
+ getPlayerAge(): int
+ getPlayerSkillLevel(): int
+ getPreferredPosition(): Position
+ getLastName(): String

## U10TeamFrameView

- overviewPanel: JPanel
- teamSizeLabel: JLabel
- displayTeamSize: JLabel
- teamStatusLabel: JLabel
- displayTeamStatus: JLabel
- lineupStatusLabel: JLabel
- displayLineupStatus: JLabel

- lineupPanel: JPanel
- startingLineupContainer: JScrollPane
- startingLineupData: String[][]
- displayStartingLineupList: JTable

- teamMemberPanel: JPanel
- teamMemberData: String[][]
- tamMemberContainer: JScrollPane
- displayTeamMemberList: Jlabel

- newPlayerPanel: JPanel
- firstNameLabel: JLabel
- firstNameInput: JTextField
- lastNameLabel: JLabel
- lastNameInput: JTextField
- dateOfBirthLabel: JLabel
- dateOfBirthDropPanel: JPanel
- yearDropdown: JComboBox<Integer>
- monthDropdown: JComboBox<Integer>
- dayDropdown: JComboBox<Integer>
- preferredPositionLabel: JLabel
- positionDropdown: JComboBox<Position>
- skillLevelLabel: JLabel
- skillLevelSlider: JSlider
- discardButton: JButton
- addPlayerButton: JButton
- addPlayerWarnings: JLabel

- teamManagementPanel: JPanel
- removePlayerLabel: JLabel
- jerseyNumberDropdown: JComboBox<Integer>
- removePlayerButton: JButton
- createTeamButton: JButton
- formLineupButton: JButton
- teamManagementWarnings: JLabel

- exitButton: JButton

+ addFeatures(U10TeamFeatures): void
+ displayTeamSize(int): void
+ displayTeamStatus(String): void
+ displayStartingLineupStatus(String): void
+ clearNewPlayerInput(): void
+ displayStartingLineupList(String[][]): void
+ displayTeamList(String[][]): void
+ displayAddPlayerWarnings(String): void
+ displayAddedNotice(): void
- resetAddPlayerWarnings(): void
+ displayTeamManagementWarnings(String): void
+ displayTeamManagementNotice(String): void
- resetTeamManagementNotice(): void

## U10TeamFrameController

- model: U10TeamModel
- view: U10TeamView

+ initializeProgram(): void
+ addPlayer(String, String, int, int, int, Position, int): void
+ updateTeamStatus(boolean): void
+ updateStartingLineupStatus(boolean): void
+ removePlayer(int): void
+ createTeam():void
+ formStartingLineup():void
+ updateTeamList(): void
+ updateTeamSize(): void
+ updateAddPlayerWarnings(String): void
+ updateTeamManagementWarnings(String): void
+ exitApp(): void

## U10TeamModelImpl

- teamFormed: boolean
- availableJerseyNumber: List<Integer>
- startingLineup: TreeMap<Position, List<Player>>
- teamMember: TreeMap<Player, Integer>
- benchPlayer: List<Player>

- initializeJerseyNumberPool(): void
+ addPlayer(String, String, int, int, int, Position, int): void
+ removePlayer(int): void
- assignJerseyNumber(): int
+ getSize(): int
+ createTeam(): void
+ getTeam(): String[][]
- sortListByLastName(List<Player>): void
- getJerseyNumber(Player): int
+ formStartingLineup(): void
- sortPlayerListBySkillLevel(List<Player>): void
- addPlayerByPreferences(): void
- moveTailsToBench(): void
- fillSpots(): void
+ getStartingLineup(): String[][]

## <<Enum>> Position

GOALIE
DEFENDER
MIDFIELDER
FORWARD

+ toString(): String
+ compare(): int

## PlayerImpl

- firstName: String
- lastName: String
- yearOfBirth: int
- monthOfBirth: int
- dayOfBirth: int
- preferredPosition: Position
- skillLevel: int

+ getName(): String
+ getPlayerAge(): int
+ getPreferredPosition(): Position
+ getPlayerSkillLevel(): int
+ getLastName(): String

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