CAPSTONE PROJECT

Dr. RUSTAM A. LUKMANOV & MUWAFFAQ IMAM

CAPSTONE PROJECT

the high point : crowning achievement

a coping stone : COPING

Dr. RUSTAM A. LUKMANOV & MUWAFFAQ IMAM

THE CITY IN NEED OF STARTUPS

~ 100 STARTUPS ARE EXPECTED TO FILL NEW INDUSTRIAL PARK SPACES

EMERGING TECH SCENE

STARTUP AS A THESIS – 4TH YEAR IN YOUR OWN COMPANY

MORE ABOUT THIS IN THE SECOND LECTURE

EMERGING TECH SCENE
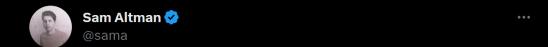
7 WEEKS

1 - PROJECT / 06.06 – 27.07

DURATION

AI – OPEN SOURCE – EXPERTS
LEVERAGE IT ALL TO BUILD YOUR PROJECT

SCOPE and PROJECT SCALE

AI and OPEN SOURCE

UNIQUE OPPORTUNITIES AHEAD

WEB, MOBILE, ML or a PERSONAL track

YOUR PROJECT SHOULD BELONG TO THIS TIERS

- 1 PROJECT PER TEAM (5 OR 7 PEOPLE)
- DIFFERENT TEAMS CAN WORK ON SAME PROBLEMS
- DIFFERENT ASPECTS OF ONE PROJECT CAN BE BUILT BY DIFFERENT TEAMS

- **FOR THE PERSONAL TRACK** – YOUR PROJECT SHOULD BE PUBLIC, NO NDA, CLEAR PERSONAL CONTRIBUTION, REPORTING

TIERS

MVP or a PROTOTYPE

**WILL BE GRADED BY A COMITEE
3 BEST TEAMS WILL RECEIVE A RECOMMENDATION TO A
UNIVERSITY STARTUP BOARD**

GOAL

MVP – PROTOTYPE EXAMPLES:

1: FUNCTIONING BOOKING SERVICE
2: FINE-TUNED LANGUAGE MODEL
3: WEB STORE
4: LOCAL EVENTS DISCOVERY platform

GOAL

PRODUCT, SERVICE or a PROBLEM –
YOUR PROJECT SHOULD AIM AND CONSIDER:

- HIGH SOCIAL UTILITY
- DEFINED CUSTOMER DOMAIN
- TIME, RESOURCE AND SCOPE CONSTRAINTS

GUIDLINES

WHILE **BUILDING** YOUR TEAM

THINGS YOU MIGHT THINK IN PRIOR

- MAKE A TEAM WITH DIVERSE SKILLS
- DIVISION OF LABOR
- SET THE RULES OF INTERACTION – MAJORITY VOTE/LEAD DECISION / FREERIDE HANDLING

TEAM BUILDING

PROJECT TIMELINE:
WEEKLY DELIVERABLES

- WEEK ONE - PITCHING IDEAS, BUILDING THE TEAM, DEFINING THE VALUE PROPOSITION

- WEEK TWO - CHOOSING THE TECH STACK, DESIGNING THE ARCHITECTURE

- WEEK THREE - DEVELOPING THE FIRST PROTOTYPE, CREATING THE PRIORITY LIST

- WEEK FOUR - TESTING AND ITERATING, NARROWING THE SCOPE

- WEEK FIVE - COLLECTING FEEDBACK, REFINING THE PRODUCT

- WEEK SIX - PREPARING FOR FINAL PRESENTATION, PACKAGING

- WEEK SEVEN – MVP/PROTOTYPE PRESENTATION, EVALUATING THE RESULTS

ROADMAP

FEEDBACK, REFLECTION, ACTION
HOW TO REPORT ON YOUR PROJECT

- WE WILL SETUP THE PROJECT WEBSITE WHERE EACH WEEK YOUR TEAM WILL BE TASKED TO REPORT ON CURRENT PROGRESS, LATEST EVERY FRIDAY EVENING
- WE WILL PROVIDE YOU WITH FEEDBACK AND MAKE SUGGESTIONS ON YOUR PROJECT
- EVERY REPORT SHOULD NOT BE SHORTER THAN A 2000 CHARACTERS
- ALL TEAMS CAN SEE ALL REPORTS / MODIFY THEIR PROJECTS ON THE BASIS OF THIS REPORTS
- EVERY REPORT WILL GIVE YOU UP TO 5 POINTS – ALL CAPSTONE REPORTS – UP TO 30
- EVERY WEEK WE WILL HAVE A LECTURE/MEETING WORKING THROUGH PAIN POINTS

LEARNING

GRADING CRITERIA 70 POINTS MAX

SOME PARTS WILL BE ESTIMATED FROM YOUR REPORTS!

- **INNOVATION:** level of creativity and novelty
- **FUNCTIONALITY:** extent to which the software prototype fulfills its intended purpose
- **USER EXPERIENCE (UX):** Considers the overall user experience provided by the prototype
- **TECHNICAL IMPLEMENTATION:** technical proficiency exhibited in the development of the prototype
- **AI INTEGRATION:** level of successful integration and utilization of AI technologies within the software prototype
- **TEAMWORK AND COLLABORATION:** level of collaboration
- **PRESENTATION AND COMMUNICATION:** clarity, persuasiveness, and professionalism of the team's presentation

FINAL EVALUATION

GRADING CRITERIA for THE Personal track 70 POINTS MAX

DESCRIBE THESE PARTS OF YOUR PROJECT IN REPORTS!

- INNOVATION: level of creativity and novelty of the project
- FUNCTIONALITY: extent to which the software prototype fulfills its intended purpose
- USER EXPERIENCE (UX): Considers the overall user experience provided by the prototype
- TECHNICAL IMPLEMENTATION: technical proficiency exhibited in the development of the prototype
- AI INTEGRATION: level of successful integration and utilization of AI technologies within the software prototype
- PRESENTATION AND COMMUNICATION: clarity, persuasiveness, and professionalism of the team's presentation
- DOCUMENTATION AND CODE ORGANIZATION: code clarity and quality, completeness of the documentation, including readme files, code comments, and user guides

FINAL EVALUATION

BUILDING ON CAPSTONE
PROJECT WAS A SUCCESS?

- CONTINUATION – MAKE SURE THAT YOUR PROJECT WILL BE FEASIBLE AFTER CAPSTONE

- MENTORSHIP – FIND MENTORS FROM THE FACULTY OR INDUSTRY

- LEADERSHIP – BUILD YOUR TEAM FURTHER - RECRUIT MORE ENGINEERS

FUTURE PROGRESS

WEEK ONE
WHAT TO DO?

INSTRUCTIONS WILL BE PUBLISHED ON THE SHARED BLOG
EACH TEAM/PERSON SHOULD OPEN THEIR BRANCH
EVERY WEEK, PUBLISH THEIR PROGRESS IN THE BRANCH
WE WILL EVALUATE YOUR REPORT AND GIVE FEEDBACK

DELIVERABLES FOR THE WEEK ONE