International Institute of Information Technology – Hyderabad

CS6.302 – SOFTWARE SYSTEMS DEVELOPMENT
Course Project Report
Project ID – TEAM 1

SCHEDULE CREATOR

Project Guide: SAI ANIRUDH KARRI

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Introduction:

A schedule is a crucial part of organizing your daily life. Whether it's for your personal use or a team of employees, your programs need to be clear, concise, and unambiguous. There are several off-the-shelf schedules on the Internet. And while many of them are effective, none of them was designed solely for you or your business. However, if you can create a schedule based on your specific needs, it will make a huge difference to the way you manage your affairs. Create personalized schedules for school, holidays, streams, planners, courses, and parties, just to name a few.

Model Overview:

Automatic creation of schedule for 1-day events related to any type of requirement. Different category events are also handled in the schedule creator. Multiple different category (academic, sports, seminar, cultural, other) can be scheduled at the same time. Different events with only durations available, can be automatically allocated in free slots available in our day schedule. Facility to provide a break after each event. Break time can vary depending on the requirement.

SCHEDULE CREATOR

START TIME : `09:25` 🕐 **END TIME :** `18:40` 🕐 **EVENT DATE :** `30/11/2022` 🗓

EVENT DETAILS

Event No.	Event Description	Event Category	Start Time (optional)	Duration (in min)	After Event Break (in min)	
1	SSD Project Eval	Academics ⌄	12:00 🕐	20	0	🗑
2	Kathak	Cultural ⌄	15:10 🕐	20	20	🗑
3	hockey	Sports ⌄	15:10 🕐	90	20	🗑
4	toc	Seminar ⌄	16:30 🕐	60	10	🗑
5	prayer	Others ⌄	14:30 🕐	10	5	🗑
6	DESCRIPTION	Academics ⌄	--:-- 🕐	0	0	🗑

✚

Parameters and working:

Input Parameters

Below are the input parameters which are required to be filled by the user.

Event Date - Date on which event need to schedule
Day start time – Start time of the First Event (Should be in multiple of 5 minutes)
Day End Time - End time of last event (Should be in multiple of 5 minutes)
Event start time (optional) - Start time of event (Should be in multiple of 5 minutes)
Event Duration - Total duration of event
Event category - Category to which event belongs
Event description - Event Name and brief intro
Break Duration - can be zero (no break) or non-zero value

What are we doing to schedule events?

- We are breaking the day into slots of 5 minutes each, every event duration is multiple of 5.
- Each event will occupy n number of slots starting from start time after arranging all.
- Different categories event can occupy same slot time, i.e multiple category events can run parallelly When start time is not available then place particular event where (Duration of events /5) number of consecutive slots are available.
- We are setting the duration of the event to the nearest multiple of 5.
- If a break is given after the event, then also include that break time into our event duration.

Technical Stack

Our project uses the below tools

- Nodejs
- JavaScript
- Material UI
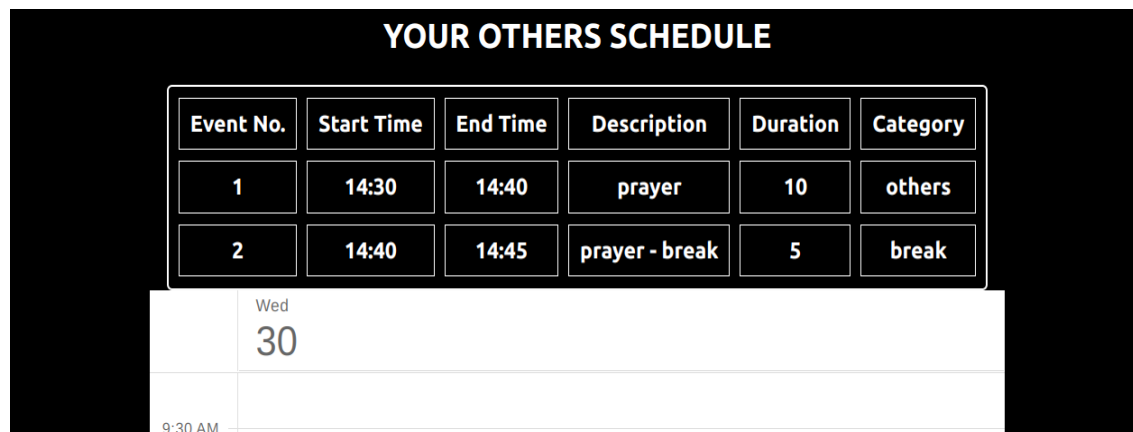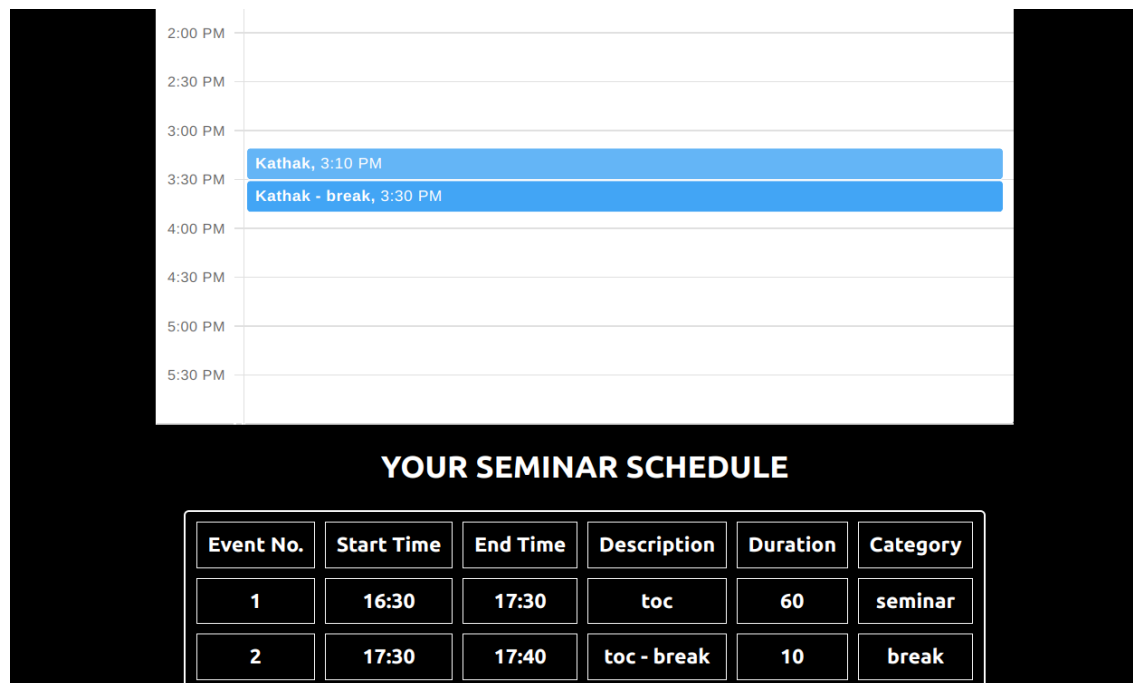- React
- HTML
- React Bootstrap

- Dev Express React Schedule

Output Format

Output can be given in the form of table and calendar.
Both are shown below.

YOUR ACADEMIC SCHEDULE

Event No.	Start Time	End Time	Description	Duration	Category
1	12:00	12:20	SSD Project Eval	20	academics

Wed
30

9:30 AM

YOUR CULTURAL SCHEDULE

Event No.	Start Time	End Time	Description	Duration	Category
1	15:10	15:30	Kathak	20	cultural
2	15:30	15:50	Kathak - break	20	break

Wed
30

9:30 AM

YOUR SPORTS SCHEDULE

Event No.	Start Time	End Time	Description	Duration	Category
1	15:10	16:40	hockey	90	sports
2	16:40	17:00	hockey - break	20	break

Wed
30

YOUR SEMINAR SCHEDULE

Event No.	Start Time	End Time	Description	Duration	Category
1	16:30	17:30	toc	60	seminar
2	17:30	17:40	toc - break	10	break

YOUR OTHERS SCHEDULE

Event No.	Start Time	End Time	Description	Duration	Category
1	14:30	14:40	prayer	10	others
2	14:40	14:45	prayer - break	5	break

Challenges & Learnings

Design Challenges

- Narrowing down on students as an intended user while keeping the design generic that can be extrapolated and customised to different needs/users, was a product of long/intense discussions.
- The darker theme of the UI in inspired from coders love for dark environment.
- We added a category wise daily calendar to make it more clear for the user whose implementation has been challenging.

Technical Challenges

- Implementing the fetching mechanism of events from the Event table generated category wise for the daily time schedule has been challenging and a learning experience.
- Self-learning the Exporting and importing of a self-created function was a difficult path but a rewarding learning experience.

Future Work

- Planning to extend the schedule creator for multiple days
- Store and retrieve the event details and schedule
- Login and integration to personal calender for multiple email accounts

Links

Node Package link

schedule-creator-iiith - npm (npmjs.com)

Github Repository link

https://github.com/hkashyap0809/01_Schedule_Creator